



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SUBJECT

**GUIDANCE FOR PREPARING AND PROCESSING
ENVIRONMENTAL AND SECTION 4(F) DOCUMENTS**

FHWA TECHNICAL ADVISORY

**T 6640.8A
October 30, 1987**

1. **PURPOSE.** To provide guidance to Federal Highway Administration (FHWA) field offices and to project applicants on the preparation and processing of environmental and Section 4(f) documents.
2. **CANCELLATION.** Technical Advisory T 6640.8, "Guidance Material for the Preparation of Environmental Documents," dated February 24, 1982, is canceled effective on November 27, 1987.
3. **APPLICABILITY**
 - a. This material is not regulatory. It has been developed to provide guidance for uniformity and consistency in the format, content and processing of the various environmental studies and documents pursuant to the National Environmental Policy Act (NEPA), 23 U.S.C. 109(h) and 23 U.S.C. 138 (Section 4(f) of the DOT Act) and the reporting requirements of 23 U.S.C. 128.
 - b. The guidance is limited to the format, content and processing of NEPA and Section 4(f) studies and documents. It should be used in combination with a knowledge and understanding of the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 CFR 1500-1508), FHWA's Environmental Impact and Related Procedures (23 CFR 771) and other environmental statutes and orders (see Appendix A).
 - c. This guidance should not be used until November 27, 1987, the effective date of the 1987 revisions to 23 CFR 771.

A handwritten signature in dark ink, appearing to read "Ali F. Sevin", is positioned above the typed name and title.

**Ali F. Sevin
Director, Office of Environmental
Policy**

Attachment

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

GUIDANCE FOR PREPARING AND PROCESSING ENVIRONMENTAL
AND SECTION 4(F) DOCUMENTS

Background

An earlier edition of this advisory (dated February 24, 1982) placed major emphasis on environmental impact statements (EISs) and provided limited guidance on environmental assessments (EAs) and other environmental studies needed for a categorical exclusion (CE) determination or a finding of no significant impact (FONSI). The revised guidance gives expanded coverage to CE determinations, EAs, FONSI, EISs, supplemental EISs, reevaluations, and Section 4(f) evaluations. This material is not regulatory. It does, however, provide for uniformity and consistency in the documentation of CEs and the development of environmental and Section 4(f) documents.

The FHWA subscribes to the philosophy that the goal of the NEPA process is better decisions and not more documentation. Environmental documents should be concise, clear, and to the point and should be supported by evidence that the necessary analyses have been made. They should focus on the important impacts and issues with the less important areas only briefly discussed. The length of EAs should normally be less than 15 pages and EISs should normally be less than 150 pages for most proposed actions and not more than 300 pages for the most complex proposals. The use of technical reports for various subject areas would help reduce the size of the documents.

The FHWA considers the early coordination process to be a valuable tool in determining the scope of issues to be addressed and in identifying and focusing on the proposed action's important issues. This process normally entails the exchange of information with appropriate Federal, State and local agencies and the public from inception of the proposed action to preparation of the environmental document or to completion of environmental studies for applicable CEs. Formal scoping meetings may also be held where such meetings would assist in the preparation of the environmental document. The role of other agencies and other environmental review and consultation requirements should be established during scoping. The Council on Environmental Quality (CEQ) has issued several guidance publications on NEPA and its regulations as follows: (1) "Questions and Answers about the NEPA Regulations," March 30, 1981; (2) "Scoping Guidance," April 30, 1981; and (3) "Guidance Regarding NEPA Regulations," July 28, 1983. This nonregulatory guidance is used by FHWA in preparing and processing environmental documents. Copies of the CEQ guidance are available in the FHWA Office of Environmental Policy (HEV-11).

Note, highway agency (HA) is used throughout this document to refer to a State and local highway agency responsible for conducting environmental studies and preparing environmental documents and to FHWA's Office of Direct Federal Programs when that office acts in a similar capacity.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

SECTION	SUBJECT	PAGE
I	Categorical Exclusion (CE)	4
II	Environmental Assessment (EA).	6
III	Finding of No Significant Impact (FONSI)	8
IV	Distribution of EAs and FONSI's	10
V	EIS -- Format and Content	11
	Cover Sheet	11
	Summary	12
	Table of Contents.	13
	Purpose of and Need for Action	13
	Alternatives	14
	Affected Environment	17
	Environmental Consequences	17
	Land Use Impacts	19
	Farmland Impacts	19
	Social Impacts	20
	Relocation Impacts.	21
	Economic Impacts	22
	Joint Development	22
	Considerations Relating to Pedestrians and Bicyclists	23
	Air Quality Impacts	23
	Noise Impacts	24
	Water Quality Impacts	25
	Permits	26
	Wetland Impacts	27
	Water Body Modification and Wildlife Impacts.	28
	Floodplain Impacts.	29
	Wild and Scenic Rivers.	30
	Coastal Barriers	30
	Coastal Zone Impacts	31
	Threatened or Endangered Species	31
	Historic and Archeological Preservation	33
	Hazardous Waste Sites	34
	Visual Impacts	34
	Energy	35
	Construction Impacts	35
	Relationship of Local Short-term Uses vs. Long-term Productivity	36
	Irreversible and Irretrievable Commitment of Resources	36
	List of Preparers	37
	List of Agencies, Organizations and Persons to Whom Copies of the Statement are Sent	37
	Comments and Coordination	37
	Index	38

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

	Appendices38
VI	Options for Preparing Final EISs39
VII	Distribution of EISs and Section 4(f) Evaluations40
VIII	Record of Decision -- Format and Content42
IX	Section 4(f) Evaluations -- Format and Content44
X	Other Agency Statements47
XI	Reevaluations48
XII	Supplemental EISs49
XIII	Appendices:50
	Appendix A: Environmental Laws Authority and Related Statutes and Orders	
	Appendix B: Notice of Intent	

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

I. CATEGORICAL EXCLUSION (CE)

Categorical exclusions are actions or activities which meet the definition in 23 CFR 771.117(a) and, based on FHWA's past experience, do not have significant environmental effects. The CEs are divided into two groups based on the action's potential for impacts. The level of documentation necessary for a particular CE depends on the group the action falls under as explained below.

A. Documentation of Applicability

The first group is a list of 20 categories of actions in 23 CFR 771.117(c) which experience has shown never or almost never cause significant environmental impacts. These categories are non-construction actions (e.g., planning, grants for training and research programs) or limited construction activities (e.g., pedestrian facilities, landscaping, fencing). These actions are automatically classified as CEs, and except where unusual circumstances are brought to FHWA's attention, do not require approval or documentation by FHWA. However, other environmental laws may still apply. For example, installation of traffic signals in a historic district may require compliance with Section 106, or a proposed noise barrier which would use land protected by Section 4(f) would require preparation of a Section 4(f) evaluation (23 CFR 771.135(i)). In most cases, information is available from planning and programming documents for the FHWA Division Office to determine the applicability of other environmental laws. However, any necessary documentation should be discussed and developed cooperatively by the highway agency (HA) and the FHWA.

The second group consists of actions with a higher potential for impacts than the first group, but due to minor environmental impacts still meets the criteria for categorical exclusions. In 23 CFR 771.117(d), the regulation lists examples of 12 actions which past experience has found appropriate for CE classification. However, the second group is not limited to these 12 examples. Other actions with a similar scope of work may qualify as CEs. For actions in this group, site location is often a key factor. Some of these actions on certain sites may involve unusual circumstances or result in significant adverse environmental impacts. Because of the potential for impacts, these actions require some information to be provided by the HA so that the FHWA can determine if the CE classification is proper (23 CFR 771.117(d)). The level of information to be provided should be commensurate with the action's potential for adverse environmental impacts. Where adverse environmental impacts are likely to occur, the level of analysis should be sufficient to define the extent of impacts, identify appropriate mitigation measures, and address known and foreseeable public and agency concerns. As a minimum, the information should include a description of the proposed action and, as appropriate, its immediate surrounding area, a discussion of any specific areas of environmental concern (e.g., Section 4(f), wetlands, relocations), and a list of other Federal actions required, if any, for the proposal.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

The documentation of the decision to advance an action in the second group as a CE can be accomplished by one of the following methods:

(1) Minor actions from the list of examples:

Minor construction projects or approval actions need only minimum documentation. Where project-specific information for such minor construction projects is included with the Section 105 program and clearly shows that the project is one of the 12 listed examples in Section 771.117(d), the approval of the Section 105 program can be used to approve the projects as CEs. Similarly, the three approval actions on the list (examples (6), (7) and (12)) should not normally require detailed documentation, and the CE determination can be documented as a part of the approval action being requested.

(2) Other actions from the list of examples:

For more complex actions, additional information and possibly environmental studies will be needed. This information should be furnished to the FHWA on a case-by-case basis for concurrence in the CE determination.

(3) Actions not on the list of examples:

Any action which meets the CE criteria in 23 CFR 771.117(a) may be classified as a CE even though it does not appear on the list of examples in Section 771.117(d). The actions on the list should be used as a guide to identify other actions that may be processed as CEs. The documentation to be submitted to the FHWA must demonstrate that the CE criteria are satisfied and that the proposed project will not result in significant environmental impacts. The classification decision should be documented as a part of the individual project submissions.

B. Consideration of Unusual Circumstances

Section 771.117(b) lists those unusual circumstances where further environmental studies will be necessary to determine the appropriateness of a CE classification. Unusual circumstances can arise on any project normally advanced with a CE; however, the type and depth of additional studies will vary with the type of CE and the facts and circumstances of each situation. For those actions on the fixed list (first group) of CEs, unusual circumstances should rarely, if ever, occur due to the limited scope of work. Unless unusual circumstances come to the attention of the HA or FHWA, they need not be given further consideration. For actions in the second group of CEs, unusual circumstances should be addressed in the information provided to the FHWA with the request for CE approval. The level of consideration, analysis, and documentation should be commensurate with the action's potential for significant impacts, controversy, or inconsistency with other agencies' environmental requirements.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

When an action may involve unusual circumstances, sufficient early coordination, public involvement and environmental studies should be undertaken to determine the likelihood of significant impacts. If no significant impacts are likely to occur, the results of environmental studies and any agency and public involvement should adequately support such a conclusion and be included in the request to the FHWA for CE approval. If significant impacts are likely to occur, an EIS must be prepared (23 CFR 771.123(a)). If the likelihood of significant impacts is uncertain even after studies have been undertaken, the HA should consult with the FHWA to determine whether to prepare an EA or an EIS.

II. ENVIRONMENTAL ASSESSMENT (EA)

The primary purpose of an EA is to help the FHWA and HA decide whether or not an EIS is needed. Therefore, the EA should address only those resources or features which the FHWA and the HA decide will have a likelihood for being significantly impacted. The EA should be a concise document and should not contain long descriptions or detailed information which may have been gathered or analyses which may have been conducted for the proposed action. Although the regulations do not set page limits, CEQ recommends that the length of EAs usually be less than 15 pages. To minimize volume, the EA should use good quality maps and exhibits and incorporate by reference and summarize background data and technical analyses to support the concise discussions of the alternatives and their impacts.

The following format and content is suggested:

A. Cover Sheet.

There is no required format for the EA. However, the EIS cover sheet format, as shown in Section V, is recommended as a guide. A document number is not necessary. The due date for comments should be omitted unless the EA is distributed for comments.

B. Purpose of and Need for Action.

Describe the locations, length, termini, proposed improvements, etc. Identify and describe the transportation or other needs which the proposed action is intended to satisfy (e.g., provide system continuity, alleviate traffic congestion, and correct safety or roadway deficiencies). In many cases the project need can be adequately explained in one or two paragraphs. On projects where a law, Executive Order or regulation (e.g., Section 4(f), Executive Order 11990 or Executive Order 11988) mandates an evaluation of avoidance alternatives, the explanation of the project need should be more specific so that avoidance alternatives that do not meet the stated project need can be readily dismissed.

C. Alternatives

Discuss alternatives to the proposed action, including the no-action alternative, which are being considered. The EA may either discuss (1) the preferred alternative and identify any other alternatives considered or (2) if the applicant has not identified a preferred alternative, the alternatives under consideration. The EA does not need to evaluate in detail all reasonable alternatives for the project, and may be prepared for one or more build alternatives.

D. Impacts.

For each alternative being considered, discuss any social, economic, and environmental impacts whose significance is uncertain. The level of analysis should be sufficient to adequately identify the impacts and appropriate mitigation measures, and address known and foreseeable public and agency concerns. Describe why these impacts are considered not significant. Identified impact areas which do not have a reasonable possibility for individual or cumulative significant environmental impacts need not be discussed.

E. Comments and Coordination.

Describe the early and continuing coordination efforts, summarize the key issues and pertinent information received from the public and government agencies through these efforts, and list the agencies and, as appropriate, members of the public consulted.

F. Appendices (if any).

The appendices should include only analytical information that substantiates an analysis which is important to the document (e.g., a biological assessment for threatened or endangered species). Other information should be referenced only (i.e., identify the material and briefly describe its contents).

G. Section 4(f) Evaluation (if any).

If the EA includes a Section 4(f) evaluation, the EA/Section 4(f) evaluation or, if prepared separately, the Section 4(f) evaluation by itself must be circulated to the appropriate agencies for Section 4(f) coordination (23 CFR 771.135(i)). Section VII provides specific details on distribution and coordination of Section 4(f) evaluations. Section IX provides information on format and content of Section 4(f) evaluation.

If a programmatic Section 4(f) evaluation is used on the proposed project, this fact should be included and the Section 4(f) resource identified in the EA. The avoidance alternatives evaluation called for in Section 771.135(i) need not be repeated in the EA. Such evaluation would be part of the documentation to support the applicability and findings of the programmatic document.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

H. EA Revisions

Following the public availability period, the EA should be revised or an attachment provided, as appropriate, to (1) reflect changes in the proposed action or mitigation measures resulting from comments received on the EA or at the public hearing (if one is held) and any impacts of the changes, (2) include any necessary findings, agreements, or determination (e.g., wetlands, Section 106, Section 4(f)) required for the proposal, and (3) include a copy of pertinent comments received on the EA and appropriate responses to the comments.

III. FINDING OF NO SIGNIFICANT IMPACT (FONSI)

The EA, revised or with attachment(s) (see paragraph above) is submitted by the HA to the FHWA along with (1) a copy of the public hearing transcript, when one is held, (2) a recommendation of the preferred alternative, and (3) a request that a finding of no significant impact be made. The basis for the HA's finding of no significant impact request should be adequately documented in the EA and any attachment(s).

After review of the EA and any other appropriate information, the FHWA may determine that the proposed action has no significant impacts. This is documented by attaching to the EA a separate statement (sample follows) which clearly sets forth the FHWA conclusions. If necessary, the FHWA may expand the sample FONSI to identify the basis for the decision, uses of land from Section 4(f) properties, wetland finding, etc.

The EA or FONSI should document compliance with NEPA and other applicable environmental laws, Executive Orders, and related requirements. If full compliance with these other requirements is not possible by the time the FONSI is prepared, the documents should reflect consultation with the appropriate agencies and describe when and how the requirements will be met. For example, any action requiring the use of Section 4(f) property cannot proceed until FHWA gives a Section 4(f) approval (49 U.S.C. 303(c)).

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

(SAMPLE)

FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
FOR
(Title of Proposed Action)

The FHWA has determined that alternative (identify the alternative selected) will have no significant impact on the human environment. This FONSI is based on the attached EA (reference other environmental and non-environmental documents as appropriate) which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an EIS is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached EA (and other documents as appropriate).

Date

For FHWA

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

IV. DISTRIBUTION OF EAs AND FONSI's

A. Environmental Assessment

After clearance by FHWA, EAs must be made available for public inspection at the HA and FHWA Division offices (23 CFR 771.119(d)). Although only a notice of availability of the EA is required, the HA is encouraged to distribute a copy of the document with the notice to Federal, State and local government agencies likely to have an interest in the undertaking and to the State intergovernmental review contacts. The HA should also distribute the EA to any Federal, State or local agency known to have interest or special expertise (e.g. EPA for wetlands, water quality, air, noise, etc.) in those areas addressed in the EA which have or may have had potential for significant impact. The possible impacts and the agencies involved should be identified following the early coordination process. Where an individual permit would be required from the Corps of Engineers (COE) (i.e., Section 404 or Section 10) or from the Coast Guard (CG) (i.e., Section 9), a copy of the EA should be distributed to the involved agency in accordance with the U.S. Department of Transportation (DOT)/Corps of Engineers Memorandum of Agreement or the FHWA/U.S. Coast Guard Memorandum of Understanding, respectively. Any internal FHWA distribution will be determined by the Division Office on a case-by-case basis.

B. Finding of No Significant Impact

Formal distribution of a FONSI is not required. The HA must send a notice of availability of the FONSI to Federal, State and local government agencies likely to have an interest in the undertaking and the State intergovernmental review contacts (23 CFR 771.121(b)). However, it is encouraged that agencies which commented on the EA (or requested to be informed) be advised of the project decision and the disposition of their comments and be provided a copy of the FONSI. This fosters good lines of communication and enhances interagency coordination.

V. Environmental Impact Statement (EIS) — FORMAT AND CONTENT

A. Cover Sheet

Each EIS should have a cover sheet containing the following information:

(EIS NUMBER)

Route, Termini, City or County, and State

Draft (Final) (Supplement)

Environmental Impact Statement

Submitted Pursuant to 42 U.S.C. 4332 (2) (c)

(and where applicable, 49 U.S.C. 303) by the

U.S. Department of Transportation

Federal Highway Administration

and

State Highway Agency

and

(As applicable, any other joint lead agency)

Cooperating Agencies

(Include List Here, as applicable)

Date of Approval

For (State Highway
Agency)

Date of Approval

For FHWA

The following persons may be contacted for additional information concerning this document:

(Name, address, and telephone
number of FHWA Division Office
contact)

(Name, address, and telephone
number of HA contact)

A one-paragraph abstract of the statement.

Comments on this draft EIS are due by (date) and should be sent to (name and address).

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

The top left-hand corner of the cover sheet of all draft final and supplemental EISs contains an identification number. The following is an example:

FHWA-AZ-EIS-87-01-D(F)(S)

- FHWA - name of Federal agency
- AZ - name of State (cannot exceed four characters)
- EIS - environmental impact statement
- 87 - year draft statement was prepared
- 01 - sequential number of draft statement for each calendar year
- D - designates the statement as the draft statement
- F - designates the statement as the final statement
- S - designates supplemental statement and should be combined with draft (DS) or final (FS) statement designation. The year and sequential number will be the same as those used for the original draft EIS.

The EIS should be printed on 8 1/2 x 11-inch paper with any foldout sheets folded to that size. The wider sheets should be 8 1/2 inches high and should open to the right with the title or identification on the right. The standard size is needed for administrative recordkeeping.

B. Summary

The summary should include:

- (1) A brief description of the proposed FHWA action indicating route, termini, type of improvement, number of lanes, length, county, city, State, and other information, as appropriate.
- (2) A description of any major actions proposed by other governmental agencies in the same geographic area as the proposed FHWA action.
- (3) A summary of all reasonable alternatives considered. (The draft EIS must identify the preferred alternative or alternatives officially identified by the HA (40 CFR 1502.14(e)). The final EIS must identify the preferred alternative and should discuss the basis for its selection (23 CFR 771.125(a)(1)).
- (4) A summary of major environmental impacts, both beneficial and adverse.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

- (5) Any areas of controversy (including issues raised by agencies and the public).
- (6) Any major unresolved issues with other agencies.
- (7) A list of other Federal actions required for the proposed action (i.e., permit approvals, land transfer, Section 106 agreements, etc.).

C. Table of Contents

For consistency with CEQ regulations, the following standard format should be used:

- (1) Cover Sheet
- (2) Summary
- (3) Table of Contents
- (4) Purpose of and Need for Action
- (5) Alternatives
- (6) Affected Environment
- (7) Environmental Consequences
- (8) List of Preparers
- (9) List of Agencies, Organizations, and Persons to Whom Copies of the Statement are Sent
- (10) Comments and Coordination
- (11) Index
- (12) Appendices (if any)

D. Purpose of and Need for Action

Identify and describe the proposed action and the transportation problem(s) or other needs which it is intended to address (40 CFR 1502.13). This section should clearly demonstrate that a "need" exists and should define the "need" in terms understandable to the general public. This discussion should clearly describe the problems which the proposed action is to correct. It will form the basis for the "no action" discussion in the "Alternatives" section, and assist with the identification of reasonable alternatives and the selection of the preferred alternative. Charts, tables, maps and other illustrations (e.g., typical cross-section, photographs, etc.) are encouraged as useful presentation techniques.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

The following is a list of items which may assist in the explanation of the need for the proposed action. It is by no means all-inclusive or applicable in every situation and is intended only as a guide.

- (1) Project Status - Briefly describe the project history including actions taken to date, other agencies and governmental units involved, actions pending, schedules, etc.
- (2) System Linkage - Is the proposed project a "connecting link?" How does it fit in the transportation system?
- (3) Capacity - Is the capacity of the present facility inadequate for the present traffic? Projected traffic? What capacity is needed? What is the level(s) of service for existing and proposed facilities?
- (4) Transportation Demand - Including relationship to any statewide plan or adopted urban transportation plan together with an explanation of the project's traffic forecasts that are substantially different from those estimates from the 23 U.S.C. 134 (Section 134) planning process.
- (5) Legislation - Is there a Federal, State, or local governmental mandate for the action.
- (6) Social Demands or Economic Development - New employment, schools, land use plans, recreation, etc. What projected economic development/land use changes indicate the need to improve or add to the highway capacity?
- (7) Modal Interrelationships - How will the proposed facility interface with and serve to complement airports, rail and port facilities, mass transit services, etc.?
- (8) Safety - Is the proposed project necessary to correct an existing or potential safety hazard? Is the existing accident rate excessively high? Why? How will the proposed project improve it?
- (9) Roadway Deficiencies - Is the proposed project necessary to correct existing roadway deficiencies (e.g., substandard geometrics, load limits on structures, inadequate cross-section, or high maintenance costs)? How will the proposed project improve it?

E. Alternatives

This section of the draft EIS must discuss a range of alternatives, including all "reasonable alternatives" under consideration and those "other alternatives" which were eliminated from detailed study (23 CFR 771.123(c)). The section should begin with a concise discussion of how and why the "reasonable alternatives" were selected for detailed study and explain why "other alternatives" were eliminated. The following range of alternatives should be considered when determining reasonable alternatives:

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

- (1) "No-action" alternative: The "no-action" alternative normally includes short-term minor restoration types of activities (safety and maintenance improvements, etc.) that maintain continuing operation of the existing roadway.
- (2) Transportation System Management (TSM) alternative: The TSM alternative includes those activities which maximize the efficiency of the present system. Possible subject areas to include in this alternative are options such as fringe parking, ridesharing, high-occupancy vehicle (HOV) lanes on existing roadways, and traffic signal timing optimization. This limited construction alternative is usually relevant only for major projects proposed in urbanized areas over 200,000 population.

For all major projects in these urbanized areas, HOV lanes should be considered. Consideration of this alternative may be accomplished by reference to the regional transportation plan, when that plan considers this option. Where a regional transportation plan does not reflect consideration of this option, it may be necessary to evaluate the feasibility of HOV lanes during early project development. Where a TSM alternative is identified as a reasonable alternative for a "connecting link" project, it should be evaluated to determine the effect that not building a highway link in the transportation plan will have on the remainder of the system. A similar analysis should be made where a TSM element(s) (e.g., HOV lanes) is part of a build alternative and reduces the scale of the highway link.

While the above discussion relates primarily to major projects in urbanized areas, the concept of achieving maximum utilization of existing facilities is equally important in rural areas. Before selecting an alternative on new location for major projects in rural areas, it is important to demonstrate that reconstruction and rehabilitation of the existing system will not adequately correct the identified deficiencies and meet the project need.

- (3) Mass Transit: This alternative includes those reasonable and feasible transit options (bus systems, rail, etc.) even though they may not be within the existing FHWA funding authority. It should be considered on all proposed major highway projects in urbanized areas over 200,000 population. Consideration of this alternative may be accomplished by reference to the regional or area transportation plan where that plan considers mass transit or by an independent analysis during early project development.

Where urban projects are multi-modal and are proposed for Federal funding, close coordination is necessary with the Urban Mass Transportation Administration (UMTA). In these situations, UMTA should be consulted early in the project-development process. Where UMTA funds are likely to be requested for portions of the proposal, UMTA must be requested to be either a joint lead agency or a cooperating

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

agency at the earliest stages of project development (23 CFR 771.111(d)). Where applicable, cost-effectiveness studies that have been performed should be summarized in the EIS.

- (4) Build alternatives: Both improvement of existing highway(s) and alternatives on new location should be evaluated. A representative number of reasonable alternatives must be presented and evaluated in detail in the draft EIS (40 CFR 1502.14(a)). For most major projects, there is a potential for a large number of reasonable alternatives. Where there is a large number of alternatives, only a representative number of the most reasonable examples, covering the full range of alternatives, must be presented. The determination of the number of reasonable alternatives in the draft EIS, therefore, depends on the particular project and the facts and circumstances in each case.

Each alternative should be briefly described using maps or other visual aids such as photographs, drawings, or sketches to help explain the various alternatives. The material should provide a clear understanding of each alternative's termini, location, costs, and the project concept (number of lanes, right-of-way requirements, median width, access control etc.). Where land has been or will be reserved or dedicated by local government(s), donated by individuals, or acquired through advanced or hardship acquisition for use as highway right-of-way for any alternative under consideration, the draft EIS should identify the status and extent of such property and the alternatives involved. Where such lands are reserved, the EIS should state that the reserved lands will not influence the alternative to be selected.

Development of more detailed design for some aspects (e.g., Section 4(f), COE or CG permits, noise, wetlands, etc.) of one or more alternatives may be necessary during preparation of the draft and final EIS in order to evaluate impacts or mitigation measures or to address issues raised by other agencies or the public. However, care should be taken to avoid unnecessarily specifying features which preclude cost-effective final design options.

All reasonable alternatives under consideration (including the no-build) need to be developed to a comparable level of detail in the draft EIS so that their comparative merits may be evaluated (40 CFR 1502.14(b) and (d)). In those situations where the HA has officially identified a "preferred" alternative based on its early coordination and environmental studies, the HA should so indicate in the draft EIS. In these instances, the draft EIS should include a statement indicating that the final selection of an alternative will not be made until the alternatives' impacts and comments on the draft EIS and from the public hearing (if held) have been fully evaluated. Where a preferred alternative has not been identified, the draft EIS should state that all reasonable alternatives are under consideration and that a decision will be made after the alternatives' impacts and comments on the draft EIS and from the public hearing (if held) have been fully evaluated.

The final EIS must identify the preferred alternative and should discuss the basis for its selection (23 CFR 771.125(a)(1)). The discussion should provide the information and rationale identified in Section VIII (Record of Decision), paragraph (B). If the preferred alternative is modified after the draft EIS, the final EIS should clearly identify the changes and discuss the reasons why any new impacts are not significant.

F. Affected Environment

This section provides a concise description of the existing social, economic, and environmental setting for the area affected by all alternatives presented in the EIS. Where possible, the description should be a single description for the general project area rather than a separate one for each alternative. The general population served and/or affected (city, county, etc.) by the proposed action should be identified by race, color, national origin, and age. Demographic data should be obtained from available secondary sources (e.g., census data, planning reports) unless more detailed information is necessary to address specific concerns. All socially, economically, and environmentally sensitive locations or features in the proposed project impact area, (e.g., neighborhoods, elderly/minority/ethnic groups, parks, hazardous material sites, historic resources, wetlands, etc.) should be identified on exhibits and briefly described in the text. However, it may be desirable to exclude from environmental documents the specific location of archeological sites to prevent vandalism.

To reduce paperwork and eliminate extraneous background material, the discussion should be limited to data, information, issues, and values which will have a bearing on possible impacts, mitigation measures, and on the selection of an alternative. Data and analyses should be commensurate with the importance of the impact, with the less important material summarized or referenced rather than be reproduced. Photographs, illustrations, and other graphics should be used with the text to give a clear understanding of the area and the important issues. Other Federal activities which contribute to the significance of the proposed action's impacts should be described.

This section should also briefly describe the scope and status of the planning processes for the local jurisdictions and the project area. Maps of any adopted land use and transportation plans for these jurisdictions and the project area would be helpful in relating the proposed project to the planning processes.

G. Environmental Consequences

This section includes the probable beneficial and adverse social, economic, and environmental effects of alternatives under consideration and describes the measures proposed to mitigate adverse impacts. The information should have sufficient scientific and analytical substance to provide a basis for evaluating the comparative merits of the alternatives. The discussion of the proposed project impacts should not use the term significant in

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

describing the level of impacts. There is no benefit to be gained from its use. If the term significant is used, however, it should be consistent with the CEQ definition and be supported by factual information.

There are two principal ways of preparing this section. One is to discuss the impacts and mitigation measures separately for each alternative with the alternatives as headings. The second (which is advantageous where there are few alternatives or where impacts are similar for the various alternatives) is to present this section with the impacts as the headings. Where appropriate, a sub-section should be included which discusses the general impacts and mitigation measures that are the same for the various alternatives under consideration. This would reduce or eliminate repetition under each of the alternative discussions. Charts, tables, maps, and other graphics illustrating comparisons between the alternatives (e.g., costs, residential displacements, noise impacts, etc.) are useful as a presentation technique.

When preparing the final EIS, the impacts and mitigation measures of the alternatives, particularly the preferred alternative, may need to be discussed in more detail to elaborate on information, firm-up commitments or address issues raised following the draft EIS. The final EIS should also identify any new impacts (and their significance) resulting from modification of or identification of substantive new circumstances or information regarding the preferred alternative following the draft EIS circulation. Note: Where new significant impacts are identified a supplemental draft EIS is required (40 CFR 1502.9(c)).

The following information should be included in both the draft and final EIS for each reasonable alternative:

- (1) A summary of studies undertaken, any major assumptions made and supporting information on the validity of the methodology (where the methodology is not generally accepted as state-of-the-art).
- (2) Sufficient supporting information or results of analyses to establish the reasonableness of the conclusions on impacts.
- (3) A discussion of mitigation measures. These measures normally should be investigated in appropriate detail for each reasonable alternative so they can be identified in the draft EIS. The final EIS should identify, describe and analyze all proposed mitigation measures for the preferred alternative.

In addition to normal FHWA program monitoring of design and construction activities, special instances may arise when a formal program for monitoring impacts or implementation of mitigation measures will be appropriate. For example, monitoring ground or surface waters that are sources for drinking water supply; monitoring noise or vibration of nearby sensitive activities (e.g., hospitals, schools); or providing on-site professional archeologist

to monitor excavation activities in highly sensitive archeological areas. In these instances, the final EIS should describe the monitoring program.

- (4) A discussion, evaluation and resolution of important issues on each alternative. If important issues raised by other agencies on the preferred alternative remain unresolved, the final EIS must identify those issues and the consultations and other efforts made to resolve them (23 CFR 771.125(a)(2)).

Listed below are potentially significant impacts most commonly encountered by highway projects. These factors should be discussed for each reasonable alternative where a potential for impact exists. This list is not all-inclusive and on specific projects there may be other impact areas that should be included.

1. Land Use Impacts

This discussion should identify the current development trends and the State and/or local government plans and policies on land use and growth in the area which will be impacted by the proposed project.

These plans and policies are normally reflected in the area's comprehensive development plan, and include land use, transportation, public facilities, housing, community services, and other areas.

The land use discussion should assess the consistency of the alternatives with the comprehensive development plans adopted for the area and (if applicable) other plans used in the development of the transportation plan required by Section 134. The secondary social, economic, and environmental impacts of any substantial, foreseeable, induced development should be presented for each alternative, including adverse effects on existing communities. Where possible, the distinction between planned and unplanned growth should be identified.

2. Farmland Impacts

Farmland includes 1) prime, 2) unique, 3) other than prime or unique that is of statewide importance, and 4) other than prime or unique that is of local importance.

The draft EIS should summarize the results of early consultation with the Soil Conservation Service (SCS) and, as appropriate, State and local agriculture agencies where any of the four specified types of farmland could be directly or indirectly impacted by any alternative under consideration. Where farmland would be impacted, the draft EIS should contain a map showing the location of all farmlands in the project impact area, discuss the impacts of the various alternatives and identify measures to avoid or reduce the impacts. Form AD 1006 (Farmland Conversion Impact Rating) should be processed, as appropriate, and a copy included in the

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

draft EIS. Where the Land Evaluation and Site Assessment score (from Form AD 1006) is 160 points or greater, the draft EIS should discuss alternatives to avoid farmland impacts.

If avoidance is not possible, measures to minimize or reduce the impacts should be evaluated and, where appropriate, included in the proposed action.

3. Social Impacts

Where there are foreseeable impacts, the draft EIS should discuss the following items for each alternative commensurate with the level of impacts and to the extent they are distinguishable:

- (a) Changes in the neighborhoods or community cohesion for the various social groups as a result of the proposed action. These changes may be beneficial or adverse, and may include splitting neighborhoods, isolating a portion of a neighborhood or an ethnic group, generating new development, changing property values, or separating residents from community facilities, etc.
- (b) Changes in travel patterns and accessibility (e.g., vehicular, commuter, bicycle, or pedestrian).
- (c) Impacts on school districts, recreation areas, churches, businesses, police and fire protection, etc. This should include both the direct impacts to these entities and the indirect impacts resulting from the displacement of households and businesses.
- (d) Impacts of alternatives on highway and traffic safety as well as on overall public safety.
- (e) General social groups specially benefited or harmed by the proposed project. The effects of a project on the elderly, handicapped, nondrivers, transit-dependent and minority and ethnic groups are of particular concern and should be described to the extent these effects can be reasonably predicted. Where impacts on a minority or ethnic population are likely to be an important issue, the EIS should contain the following information broken down by race, color, and national origins: the population of the study area, the number of displaced residents, the type and number of displaced businesses, and an estimate of the number of displaced employees in each business sector. Changes in ethnic or minority employment opportunities should be discussed and the relationship of the project to other Federal actions which may serve or adversely affect the ethnic or minority population should be identified.

The discussion should address whether any social group is disproportionately impacted and identify possible mitigation measures to avoid or minimize any adverse impacts. Secondary sources of information such as census and personal contact with community leaders supplemented by visual inspections normally should be used to obtain

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

the data for this analysis. However, for projects with major community impacts, a survey of the affected area may be needed to identify the extent and severity of impacts on these social groups.

4. Relocation Impacts

The relocation information should be summarized in sufficient detail to adequately explain the relocation situation including anticipated problems and proposed solutions. Project relocation documents from which information is summarized should be referenced in the draft EIS. Secondary sources of information such as census, economic reports and contact with community leaders, supplemented by visual inspections (and, as appropriate, contact with local officials) may be used to obtain the data for this analysis. Where a proposed project will result in displacements, the following information regarding households and businesses should be discussed for each alternative under consideration commensurate with the level of impacts and to the extent they are likely to occur:

- (a) An estimate of the number of households to be displaced, including the family characteristics (e.g., minority, ethnic, handicapped, elderly, large family, income level, and owner/tenant status). However, where there are very few displacees, information on race, ethnicity and income levels should not be included in the EIS to protect the privacy of those affected.
- (b) A discussion comparing available (decent, safe, and sanitary) housing in the area with the housing needs of the displacees. The comparison should include (1) price ranges, (2) sizes (number of bedrooms), and (3) occupancy status (owner/tenant).
- (c) A discussion of any affected neighborhoods, public facilities, non-profit organizations, and families having special composition (e.g., ethnic, minority, elderly, handicapped, or other factors) which may require special relocation considerations and the measures proposed to resolve these relocation concerns.
- (d) A discussion of the measures to be taken where the existing housing inventory is insufficient, does not meet relocation standards, or is not within the financial capability of the displacees. A commitment to last resort housing should be included when sufficient comparable replacement housing may not be available.
- (e) An estimate of the numbers, descriptions, types of occupancy (owner/tenant), and sizes (number of employees) of businesses and farms to be displaced. Additionally, the discussion should identify (1) sites available in the area to which the affected businesses may relocate, (2) likelihood of such relocation, and (3) potential impacts on individual businesses and farms caused by displacement or proximity of the proposed highway if not displaced.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

- (f) A discussion of the results of contacts, if any, with local governments, organizations, groups, and individuals regarding residential and business relocation impacts, including any measures or coordination needed to reduce general and/or specific impacts. These contacts are encouraged for projects with large numbers of relocatees or complex relocation requirements. Specific financial and incentive programs or opportunities (beyond those provided by the Uniform Relocation Act) to residential and business relocatees to minimize impacts may be identified, if available through other agencies or organizations.
- (g) A statement that (1) the acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and (2) relocation resources are available to all residential and business relocatees without discrimination.

5. Economic Impacts

Where there are foreseeable economic impacts, the draft EIS should discuss the following for each alternative commensurate with the level of impacts:

- (a) The economic impacts on the regional and/or local economy such as the effects of the project on development, tax revenues and public expenditures, employment opportunities, accessibility, and retail sales. Where substantial impacts on the economic viability of affected municipalities are likely to occur, they should also be discussed together with a summary of any efforts undertaken and agreements reached for using the transportation investment to support both public and private economic development plans. To the extent possible, this discussion should rely upon results of coordination with and views of affected State, county, and city officials and upon studies performed under Section 134.
- (b) The impacts on the economic vitality of existing highway-related businesses (e.g., gasoline stations, motels, etc.) and the resultant impact, if any, on the local economy. For example, the loss of business or employment resulting from building an alternative on new location bypassing a local community.
- (c) Impacts of the proposed action on established business districts, and any opportunities to minimize or reduce such impacts by the public and/or private sectors. This concern is likely to occur on a project that might lead to or support new large commercial development outside of a central business district.

6. Joint Development

Where appropriate, the draft EIS should identify and discuss those joint development measures which will preserve or enhance an affected community's social, economic, environmental, and visual values. This discussion may be

presented separately or combined with the land use and/or social impacts presentations. The benefits to be derived, those who will benefit (communities, social groups, etc.), and the entities responsible for maintaining the measures should be identified.

7. Considerations Relating to Pedestrians and Bicyclists

Where current pedestrian or bicycle facilities or indications of use are identified, the draft EIS should discuss the current and anticipated use of the facilities, the potential impacts of the affected alternatives, and proposed measures, if any, to avoid or reduce adverse impacts to the facility(ies) and its users. Where new facilities are proposed as a part of the proposed highway project, the EIS should include sufficient information to explain the basis for providing the facilities (e.g., proposed bicycle facility is a link in the local plan or sidewalks will reduce project access impact to the community). The final EIS should identify those facilities to be included in the preferred alternative. Where the preferred alternative would sever an existing major route for non-motorized transportation traffic, the proposed project needs to provide a reasonably alternative route or demonstrate that such a route exists (23 U.S.C. 109(n)). To the fullest extent possible, this needs to be described in the final EIS.

8. Air Quality Impacts

The draft EIS should contain a brief discussion of the transportation-related air quality concerns in the project area and a summary of the project-related carbon monoxide (CO) analysis if such analysis is performed. The following information should be presented, as appropriate.

- (a) Mesoscale Concerns: Ozone (O_3), Hydrocarbons (HC) and Nitrogen Oxide (NO_x) air quality concerns are regional in nature and as such meaningful evaluation on a project-by-project basis is not possible. Where these pollutants are an issue, the air quality emissions inventories in the State Implementation Plan (SIP) should be referenced and briefly summarized in the draft EIS. Further, the relationship of the project to the SIP should be described in the draft EIS by including one of the following statements:

- (1) This project is in an area where the SIP does not contain any transportation control measures. Therefore, the conformity procedures of 23 CFR 770 do not apply to this project.
- (2) This project is in an area which has transportation control measures in the SIP which was (conditionally) approved by the Environmental Protection Agency (EPA) on (date). The FHWA has determined that both the transportation plan and the transportation improvement program conform to the SIP. The FHWA has determined that this project is included in the transportation improvement program for the (indicate 3C planning area). Therefore, pursuant to 23 CFR 770, this project conforms to the SIP.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

Under certain circumstances, neither of these statements will precisely fit the situation and may need to be modified. Additionally, if the project is a Transportation Control Measure from the SIP, this should be highlighted to emphasize the project's air quality benefits.

- (b) Microscale Concerns: Carbon monoxide is a project-related concern and as such should be evaluated in the draft EIS. A microscale CO analysis is unnecessary where such impacts (project CO contribution plus background) can be judged to be well below the 1- and 8-hour National Ambient Air Quality Standards (or other applicable State or local standards). This judgment may be based on (1) previous analyses for similar projects; (2) previous general analyses for various classes of projects; or (3) simplified graphical or "look-up" table evaluations. In these cases, a brief statement stating the basis for the judgment is sufficient.

For those projects where a microscale CO analysis is performed, each reasonable alternative should be analyzed for the estimated time of completion and design year. A brief summary of the methodologies and assumptions used should be included in the draft EIS. Lengthy discussions, if needed, should be included in a separate technical report and referenced in the EIS. Total CO concentrations (project contribution plus estimated background) at identified reasonable receptors for each alternative should be reported. A comparison should be made between alternatives and with applicable State and national standards. Use of a table for this comparison is recommended for clarity.

As long as the total predicted 1-hour CO concentration is less than 9 ppm (the 8-hour CO standard), no separate 8-hour analysis is necessary. If the 1-hour CO concentration is greater than 9 ppm, an 8-hour analysis should be performed. Where the preferred alternative would result in violations of the 1 or 8-hour CO standards, an effort should be made to develop reasonable mitigation measures through early coordination between FHWA, EPA, and appropriate State and local highway and air quality agencies. The final EIS should discuss the proposed mitigation measures and include evidence of the coordination.

9. Noise Impacts

The draft EIS should contain a summary of the noise analysis including the following for each alternative under detailed study:

- (a) A brief description of noise sensitive areas (residences, businesses, schools, parks, etc.), including information on the number and types of activities which may be affected. This should include developed lands and undeveloped lands for which development is planned, designed, and programmed.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

- (b) The extent of the impact (in decibels) at each sensitive area. This includes a comparison of the predicted noise levels with both the FHWA noise abatement criteria and the existing noise levels. (Traffic noise impacts occur when the predicted traffic noise levels approach or exceed the noise abatement criteria or when they substantially exceed the existing noise levels). Where there is a substantial increase in noise levels, the HA should identify the criterion used for defining "substantial increase." Use of a table for this comparison is recommended for clarity.
- (c) Noise abatement measures which have been considered for each impacted area and those measures that are reasonable and feasible and that would "likely" be incorporated into the proposed project. Estimated costs, decibel reductions and height and length of barriers should be shown for all abatement measures.

Where it is desirable to qualify the term "likely," the following statement or similar wording would be appropriate. "Based on the studies completed to date, the State intends to install noise abatement measures in the form of a barrier at (location(s)). These preliminary indications of likely abatement measures are based upon preliminary design for a barrier of _____ high and _____ long and a cost of \$_____ that will reduce the noise level by _____ dBA for _____ residences (businesses, schools, parks, etc.). (Where there is more than one barrier, provide information for each one.) If during final design these conditions substantially change, the abatement measures might not be provided. A final decision on the installation of abatement measure(s) will be made upon completion of the project design and the public involvement process."

- (d) Noise impacts for which no prudent solution is reasonably available and the reasons why.

10. Water Quality Impacts

The draft EIS should include summaries of analyses and consultations with the State and/or local agency responsible for water quality. Coordination with the EPA under the Federal Clean Water Act may also provide assistance in this area. The discussion should include sufficient information to describe the ambient conditions of streams and water bodies which are likely to be impacted and identify the potential impacts of each alternative and proposed mitigation measures. Under normal circumstances, existing data may be used to describe ambient conditions. The inclusion of water quality data spanning several years is encouraged to reflect trends.

The draft EIS should also identify any locations where roadway runoff or other nonpoint source pollution may have an adverse impact on sensitive water resources such as water supply reservoirs, ground water recharge areas, and high quality streams. The 1981 FHWA research report entitled "Constituents of Highway Runoff," the 1985 report entitled "Management Practices for Mitigation of Highway Stormwater Runoff Pollution" and the

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

1987 report entitled "Effects of Highway Runoff on Receiving Waters" contain procedures for estimating pollutant loading from highway runoff and would be helpful in determining the level of potential impacts and appropriate mitigative measures. The draft EIS should identify the potential impacts of each alternative and proposed mitigation measures.

Where an area designated as principal or sole-source aquifer under Section 1424(e) of the Safe Drinking Water Act may be impacted by a proposed project, early coordination with EPA will assist in identifying potential impacts. The EPA will furnish information on whether any of the alternatives affect the aquifer. This coordination should also identify any potential impacts to the critical aquifer protection area (CAPA), if designated, within affected sole-source aquifers. If none of the alternatives affect the aquifer, the requirements of the Safe Drinking Water Act are satisfied. If an alternative is selected which affects the aquifer, a design must be developed to assure, to the satisfaction of EPA, that it will not contaminate the aquifer (40 CFR 149). The draft EIS should document coordination with EPA and identify its position on the impacts of the various alternatives. The final EIS should show that EPA's concerns on the preferred alternative have been resolved.

Wellhead protection areas were authorized by the 1986 Amendments to the Safe Drinking Water Act. Each State will develop State wellhead protection plans with final approval by EPA. When a proposed project encroaches on a wellhead protection area, the draft EIS should identify the area, the potential impact of each alternative and proposed mitigation measures. Coordination with the State agency responsible for the protection plan will aid in identifying the areas, impacts and mitigation. If the preferred alternative impacts these areas, the final EIS should document that it complies with the approved State wellhead protection plan.

11. Permits

If a facility such as a safety rest area is proposed and it will have a point source discharge, a Section 402 permit will be required for point source discharge (40 CFR 122). The draft EIS should discuss potential adverse impacts resulting from such proposed facilities and identify proposed mitigation measures. The need for a Section 402 permit and Section 401 water quality certification should be identified in the draft EIS.

For proposed actions requiring a Section 404 or Section 10 (Corps of Engineers) permit, the draft EIS should identify by alternative the general location of each dredge or fill activity, discuss the potential adverse impacts, identify proposed mitigation measures (if not addressed elsewhere in the draft EIS), and include evidence of coordination with the Corps of Engineers (in accordance with the U.S. DOT/Corps of Engineers Memorandum of Agreement) and appropriate Federal, State and local resource agencies and State and local water quality agencies. Where the preferred alternative requires an individual Section 404 or Section 10 permit, the final EIS

should identify for each permit activity the approximate quantities of dredge or fill material, general construction grades and proposed mitigation measures.

For proposed actions requiring Section 9 (U.S. Coast Guard bridge) permits, the draft EIS should identify by alternative the location of the permit activity, potential impacts to navigation and the environment (if not addressed elsewhere in the document), proposed mitigation measures and evidence coordination with the U.S. Coast Guard (in accordance with the FHWA/U.S. Coast Guard Memorandum of Understanding). Where the preferred alternative requires a Section 9 permit, the final EIS should identify for each permit activity the proposed horizontal and vertical navigational clearances and include an exhibit showing the various dimensions.

For all permit activities the final EIS should include evidence that every reasonable effort has been made to resolve the issues raised by other agencies regarding the permit activities. If important issues remain unresolved, the final EIS must identify those issues, the positions of the respective agencies on the issues and the consultations and other efforts made to resolve them (23 CFR 771.125(a)).

12. Wetland Impacts

When an alternative will impact wetlands the draft EIS should (1) identify the type, quality and function of wetlands involved, (2) describe the impacts to the wetlands, (3) evaluate alternatives which would avoid these wetlands, and (4) identify practicable measures to minimize harm to the wetlands. Wetlands should be identified by using the definition of 33 CFR 328.3(b) (issued on November 13, 1986) which requires the presence of hydrophytic vegetation, hydric soils and wetland hydrology. Exhibits showing wetlands in the project impact area in relation to the alternatives, should be provided.

In evaluating the impact of the proposed project on wetlands, the following two items should be addressed: (1) the importance of the impacted wetland(s) and (2) the severity of this impact. Merely listing the number of acres taken by the various alternatives of a highway proposal does not provide sufficient information upon which to determine the degree of impact on the wetland ecosystem. The wetlands analysis should be sufficiently detailed to provide an understanding of these two elements.

In evaluating the importance of the wetlands, the analysis should consider such factors as: (1) the primary functions of the wetlands (e.g., flood control, wildlife habitat, ground water recharge, etc.), (2) the relative importance of these functions to the total wetland resource of the area, and (3) other factors such as uniqueness that may contribute to the wetlands importance.

In determining the wetland impact, the analysis should show the project's effects on the stability and quality of the wetland(s). This analysis should consider the short- and long-term effects on the wetlands and the

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

importance of any loss such as: (1) flood control capacity, (2) shore line anchorage potential, (3) water pollution abatement capacity, and (4) fish and wildlife habitat value. The methodology developed by FHWA and described in reports numbered FHWA-IP-82-23 and FHWA IP-82-24, "A Method for Wetland Functional Assessment Volumes I and II," is recommended for use in conducting this analysis. Knowing the importance of the wetlands involved and the degree of the impact, the HA and FHWA will be in a better position to determine the mitigation efforts necessary to minimize harm to these wetlands. Mitigation measures which should be considered include preservation and improvement of existing wetlands and creation of new wetlands (consistent with 23 CFR 777).

If the preferred alternative is located in wetlands, to the fullest extent possible, the final EIS needs to contain the finding required by Executive Order 11990 that there are no practicable alternatives to construction in wetlands. Where the finding is included, approval of the final EIS will document compliance with the Executive Order 11990 requirements (23 CFR 771.125(a)(1)). The finding should be included in a separate subsection entitled "Only Practicable Alternative Finding" and should be supported by the following information:

- (a) a reference to Executive Order 11990;
- (b) an explanation why there are no practicable alternatives to the proposed action;
- (c) an explanation why the proposed action includes all practicable measures to minimize harm to wetlands; and
- (d) a concluding statement that: "Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."

13. Water Body Modification and Wildlife Impacts

For each alternative under detailed study the draft EIS should contain exhibits and discussions identifying the location and extent of water body modifications (e.g., impoundment, relocation, channel deepening, filling, etc.). The use of the stream or body of water for recreation, water supply, or other purposes should be identified. Impacts to fish and wildlife resulting from the loss, degradation, or modification of aquatic or terrestrial habitat should also be discussed. The results of coordination with appropriate Federal, State and local agencies should be documented in the draft EIS. For example, coordination with FWS under the Fish and Wildlife Coordination Act of 1958.

14. Floodplain Impacts

National Flood Insurance Program (NFIP) maps or, if NFIP maps are not available, information developed by the highway agency should be used to determine whether an alternative will encroach on the base (100-year) floodplain. The location hydraulic studies required by 23 CFR 650, Subpart A must include a discussion of the following items commensurate with the level of risk or environmental impact, for each alternative which encroaches on base floodplains or would support base floodplain development:

- (a) The flooding risks;
- (b) The impacts on natural and beneficial floodplain values;
- (c) The support of probable incompatible floodplain development (i.e., any development that is not consistent with a community's floodplain development plan);
- (d) The measures to minimize floodplain impacts; and
- (e) The measures to restore and preserve the natural and beneficial floodplain values.

The draft EIS should briefly summarize the results of the location hydraulic studies. The summary should identify the number of encroachments and any support of incompatible floodplain developments and their potential impacts. Where an encroachment or support of incompatible floodplain development results in substantial impacts, the draft EIS should provide more detailed information on the location, impacts and appropriate mitigation measures. In addition, if any alternative (1) results in a floodplain encroachment or supports incompatible floodplain development having significant impacts or (2) requires a commitment to a particular structure size or type, the draft EIS needs to include an evaluation and discussion of practicable alternatives to the structure or to the significant encroachment. The draft EIS should include exhibits which display the alternatives, the base floodplains and, where applicable, the regulatory floodways.

If the preferred alternative includes a floodplain encroachment having significant impacts, the final EIS must include a finding that it is the only practicable alternative as required by 23 CFR 650, Subpart A. The finding should refer to Executive Order 11988 and 23 CFR 650, Subpart A. It should be included in a separate subsection entitled "Only Practicable Alternative Finding" and must be supported by the following information.

- (a) The reasons why the proposed action must be located in the floodplain;
- (b) The alternatives considered and why they were not practicable; and
- (c) A statement indicating whether the action conforms to applicable State or local floodplain protection standards.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

For each alternative encroaching on a designated or proposed regulatory floodway, the draft EIS should provide a preliminary indication of whether the encroachment would be consistent with or require a revision to the regulatory floodway. Engineering and environmental analyses should be undertaken, commensurate with the level of encroachment, to permit the consistency evaluation and identify impacts. Coordination with the Federal Emergency Management Agency (FEMA) and appropriate State and local government agencies should be undertaken for each floodway encroachment. If the preferred alternative encroaches on a regulatory floodway, the final EIS should discuss the consistency of the action with the regulatory floodway. If a floodway revision is necessary, the EIS should include evidence from FEMA and local or State agency indicating that such revision would be acceptable.

15. Wild and Scenic Rivers

If the proposed action could have foreseeable adverse effects on a river on the National Wild and Scenic Rivers System or a river under study for designation to the National Wild and Scenic Rivers System, the draft EIS should identify early coordination undertaken with the agency responsible for managing the listed or study river (i.e., National Park Service (NPS), Fish and Wildlife Service (FWS), Bureau of Land Management (BLM), or Forest Service (FS)). For each alternative under consideration, the EIS should identify the potential adverse effects on the natural, cultural, and recreational values of the listed or study river. Adverse effects include alteration of the free-flowing nature of the river, alteration of the setting or deterioration of water quality. If it is determined that any of the alternatives could foreclose options to designate a study river under the Act, or adversely affect those qualities of a listed river for which it was designated, to the fullest extent possible, the draft EIS needs to reflect consultation with the managing agency on avoiding or mitigating the impacts (23 CFR 771.123(c)). The final EIS should identify measures that will be included in the preferred alternative to avoid or mitigate such impacts.

Publicly owned waters of designated wild and scenic rivers are protected by Section 4(f). Additionally, public lands adjacent to a Wild and Scenic River may be subject to Section 4(f) protection. An examination of any adopted or proposed management plan for a listed river should be helpful in making the determination on applicability of Section 4(f). For each alternative that takes such land, coordination with the agency responsible for managing the river (either NPS, FWS, BLM, or FS) will provide information on the management plan, specific affected land uses and any necessary Section 4(f) coordination.

16. Coastal Barriers

The Coastal Barrier Resources Act (CBRA) establishes certain coastal areas to be protected by prohibiting the expenditure of Federal funds for new and expanded facilities within designated coastal barrier units. When a proposed project impacts a coastal barrier unit, the draft EIS should include a map showing the relationship of each alternative to the unit(s);

identify direct and indirect impacts to the unit(s), quantifying and describing the impacts as appropriate; discuss the results of early coordination with FWS, identifying any issues raised and how they were addressed, and; identify any alternative which (if selected) would require an exception under the Act. Any issues identified or exceptions required for the preferred alternative should be resolved prior to its selection. This resolution should be documented in the final EIS.

17. Coastal Zone Impacts

Where the proposed action is within, or is likely to affect land or water uses within the area covered by a State Coastal Zone Management Program (CZMP) approved by the Department of Commerce, the draft EIS should briefly describe the portion of the affected CZMP plan, identify the potential impacts, and include evidence of coordination with the State Coastal Zone Management agency or appropriate local agency. The final EIS should include the State Coastal Zone Management agency's determination on consistency with the State CZMP plan. (In some States, an agency will make a consistency determination only after the final EIS is approved, but will provide a preliminary indication before the final EIS that the project is "not inconsistent" or "appears to be consistent" with the plan.) (For direct Federal actions, the final EIS should include the lead agency's consistency determination and agreement by the State CZM agency.) If the preferred alternative is inconsistent with the State's approved CZMP, it can be Federally funded only if the Secretary of Commerce makes a finding that the proposed action is consistent with the purpose or objectives of the CZM Act or is necessary in the interest of national security. To the fullest extent possible, such a finding needs to be included in the final EIS. If the finding is denied, the action is not eligible for Federal funding unless modified in such a manner to remove the inconsistency finding. The final EIS should document such results.

18. Threatened or Endangered Species

The HA must obtain information from the FWS of the DOI and/or the National Marine Fisheries Service (NMFS) of the Department of Commerce to determine the presence or absence of listed and proposed threatened or endangered species and designated and proposed critical habitat in the proposed project area (50 CFR 402.12(c)). The information may be (1) a published geographical list of such species or critical habitat; (2) a project-specific notification of a list of such species or critical habitat; or (3) substantiated information from other credible sources. Where the information is obtained from a published geographical list the reasons why this would satisfy the coordination with DOI should be explained. If there are no species or critical habitat in the proposed project area, the Endangered Species Act requirements have been met. The results of this coordination should be included in the draft EIS.

When a proposed species or a proposed critical habitat may be present in the proposed project area, an evaluation or, if appropriate, a biological assessment is made on the potential impacts to identify whether any such

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

species or critical habitat are likely to be adversely affected by the project. Informal consultation with FWS and/or NMFS should be undertaken during the evaluation. The draft EIS should include exhibits showing the location of the species or habitat, summarize the evaluation and potential impacts, identify proposed mitigation measures, and evidence coordination with FWS and/or NMFS. If the project is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat, the HA in consultation with the FHWA must confer with FWS and/or NMFS to attempt to resolve potential conflicts by avoiding, minimizing, or reducing the project impacts (50 CFR 402.10(a)). If the preferred alternative is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat, a conference with FWS and/or NMFS must be held to assist in identifying and resolving potential conflicts. To the fullest extent possible, the final EIS needs to summarize the results of the conference and identify reasonable and prudent alternatives to avoid the jeopardy to such proposed species or critical habitat. If no alternatives exist, the final EIS should explain the reasons why and identify any proposed mitigation measures to minimize adverse effects.

When a listed species or a designated critical habitat may be present in the proposed project area, a biological assessment must be prepared to identify any such species or habitat which are likely to be adversely affected by the proposed project (50 CFR 402.12). Informal consultation should be undertaken or, if desirable, a conference held with FWS and/or NMFS during preparation of the biological assessment. The draft EIS should summarize the following data from the biological assessment:

- (a) The species distribution, habitat needs, and other biological requirements;
- (b) The affected areas of the proposed project;
- (c) Possible impacts to the species including opinions of recognized experts on the species at issue;
- (d) Measures to avoid or minimize adverse impacts; and
- (e) Results of consultation with FWS and/or NMFS.

In selecting an alternative, jeopardy to a listed species or the destruction or adverse modification of designated critical habitat must be avoided (50 CFR 402.01(a)). If the biological assessment indicates that there are no listed species or critical habitat present that are likely to be adversely affected by the preferred alternative, the final EIS should evidence concurrence by the FWS and/or NMFS in such a determination and identify any proposed mitigation for the preferred alternative.

If the results of the biological assessment or consultation with FWS and/or NMFS show that the preferred alternative is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat, to the fullest extent possible, the final EIS needs to contain: (1) a summary of the biological assessment (see data above for draft EIS); (2) a summary of the steps taken, including alternatives or measures evaluated and conferences and consultations held, to resolve the project's conflicts with the listed species or critical habitat; (3) a copy of the biological opinion; (4) a request for an exemption from the Endangered Species Act; (5) the results of the exemption request; and (6) a statement that (if the exemption is denied) the action is not eligible for Federal funding.

19. Historic and Archeological Preservation

The draft EIS should contain a discussion demonstrating that historic and archeological resources have been identified and evaluated in accordance with the requirements of 36 CFR 800.4 for each alternative under consideration. The information and level of effort needed to identify and evaluate historic and archeological resources will vary from project to project as determined by the FHWA after considering existing information, the views of the SHPO and the Secretary of Interior's "Standards and Guidelines for Archeology and Historic Preservation." The information for newly identified historic resources should be sufficient to determine their significance and eligibility for the National Register of Historic Places. The information for archeological resources should be sufficient to identify whether each warrants preservation in place or whether it is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place. Where archeological resources are not a major factor in the selection of a preferred alternative, the determination of eligibility for the National Register of newly identified archeological resources may be deferred until after circulation of the draft EIS.

The draft EIS discussion should briefly summarize the methodologies used in identifying historic and archeological resources. Because Section 4(f) of the DOT Act applies to the use of historic resources on or eligible for the National Register and to archeological resources on or eligible for the National Register and which warrant preservation in place, the draft EIS should describe the historical resources listed in or eligible for the National Register and identify any archeological resources that warrant preservation in place. The draft EIS should summarize the impacts of each alternative on and proposed mitigation measures for each resource. The document should evidence coordination with the SHPO on the significance of newly identified historic and archeological resources, the eligibility of historic resources for the National Register and the effects of each alternative on both listed and eligible historic resources. Where the draft EIS discusses eligibility for the National Register of archeological resources, the coordination with the SHPO on eligibility and effect should address both historic and archeological resources.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

The draft EIS can serve as a vehicle for affording the Advisory Council on Historic Preservation (ACHP) an opportunity to comment pursuant to Section 106 requirements if the document contains the necessary information required by 36 CFR 800.8. The draft EIS transmittal letter to the ACHP should specifically request its comments pursuant to 36 CFR 800.6.

To the fullest extent possible, the final EIS needs to demonstrate that all the requirements of 36 CFR 800 have been met. If the preferred alternative has no effect on historic or archeological resources on or eligible for the National Register, the final EIS should indicate coordination with and agreement by the SHPO. If the preferred alternative has an effect on a resource on or eligible for the National Register, the final EIS should contain (a) a determination of no adverse effect concurred in by the Advisory Council on Historic Preservation, (b) an executed memorandum of agreement (MOA), or (c) in the case of a rare situation where FHWA is unable to conclude the MOA, a copy of comments transmitted from the ACHP to the FHWA and the FHWA response to those comments.

The proposed use of land from an historic resource on or eligible for the National Register will normally require an evaluation and approval under Section 4(f) of the DOT Act. Section 4(f) also applies to all archeological sites on or eligible for the National Register and which warrant preservation in place. (See Section IX for information on Section 4(f) evaluation.)

20. Hazardous Waste Sites

Hazardous waste sites are regulated by the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). During early planning, the location of permitted and nonregulated hazardous waste sites should be identified. Early coordination with the appropriate Regional Office of the EPA and the appropriate State agency will aid in identifying known or potential hazardous waste sites. If known or potential waste sites are identified, the locations should be clearly marked on a map showing their relationship to the alternatives under consideration. If a known or potential hazardous waste site is affected by an alternative, information about the site, the potential involvement, impacts and public health concerns of the affected alternative(s) and the proposed mitigation measures to eliminate or minimize impacts or public health concerns should be discussed in the draft EIS.

If the preferred alternative impacts a known or potential hazardous waste site, the final EIS should address and resolve the issues raised by the public and government agencies.

21. Visual Impacts

The draft EIS should state whether the project alternatives have a potential for visual quality impacts. When this potential exists, the draft EIS should identify the impacts to the existing visual resource, the

relationship of the impacts to potential viewers of and from the project, as well as measures to avoid, minimize, or reduce the adverse impacts. When there is potential for visual quality impacts, the draft EIS should explain the consideration given to design quality, art, and architecture in the project planning. These values may be particularly important for facilities located in visually sensitive urban or rural settings. When a proposed project will include features associated with design quality, art or architecture, the draft EIS should be circulated to officially designated State and local arts councils and, as appropriate, other organizations with an interest in design, art, and architecture. The final EIS should identify any proposed mitigation for the preferred alternative.

22. Energy

Except for large scale projects, a detailed energy analysis including computations of BTU requirements, etc., is not needed. For most projects, the draft EIS should discuss in general terms the construction and operational energy requirements and conservation potential of various alternatives under consideration. The discussion should be reasonable and supportable. It might recognize that the energy requirements of various construction alternatives are similar and are generally greater than the energy requirements of the no-build alternative. Additionally, the discussion could point out that the post-construction, operational energy requirements of the facility should be less with the build alternative as opposed to the no-build alternative. In such a situation, one might conclude that the savings in operational energy requirements would more than offset construction energy requirements and thus, in the long term, result in a net savings in energy usage.

For large-scale projects with potentially substantial energy impacts, the draft EIS should discuss the major direct and/or indirect energy impacts and conservation potential of each alternative. Direct energy impacts refer to the energy consumed by vehicles using the facility. Indirect impacts include construction energy and such items as the effects of any changes in automobile usage. The alternative's relationship and consistency with a State and/or regional energy plan, if one exists, should also be indicated.

The final EIS should identify any energy conservation measures that will be implemented as a part of the preferred alternative. Measures to conserve energy include the use of high-occupancy vehicle incentives and measures to improve traffic flow.

23. Construction Impacts

The draft EIS should discuss the potential adverse impacts (particularly air, noise, water, traffic congestion, detours, safety, visual, etc.) associated with construction of each alternative and identify appropriate mitigation measures. Also, where the impacts of obtaining borrow or disposal of waste material are important issues, they should be discussed

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

in the draft EIS along with any proposed measures to minimize these impacts. The final EIS should identify any proposed mitigation for the preferred alternative.

24. The Relationship Between Local Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity

The EIS should discuss in general terms the proposed action's relationship of local short-term impacts and use of resources, and the maintenance and enhancement of long-term productivity. This general discussion might recognize that the build alternatives would have similar impacts. The discussion should point out that transportation improvements are based on State and/or local comprehensive planning which consider(s) the need for present and future traffic requirements within the context of present and future land use development. In such a situation, one might then conclude that the local short-term impacts and use of resources by the proposed action is consistent with the maintenance and enhancement of long-term productivity for the local area, State, etc.

25. Any Irreversible and Irretrievable Commitments of Resources Which Would be Involved in the Proposed Action

The EIS should discuss in general terms the proposed action's irreversible and irretrievable commitment of resources. This general discussion might recognize that the build alternatives would require a similar commitment of natural, physical, human, and fiscal resources. An example of such discussion would be as follows:

"Implementation of the proposed action involves a commitment of a range of natural, physical, human, and fiscal resources. Land used in the construction of the proposed facility is considered an irreversible commitment during the time period that the land is used for a highway facility. However, if a greater need arises for use of the land or if the highway facility is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion will ever be necessary or desirable.

Considerable amounts of fossil fuels, labor, and highway construction materials such as cement, aggregate, and bituminous material are expended. Additionally, large amounts of labor and natural resources are used in the fabrication and preparation of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use will not have an adverse effect upon continued availability of these resources. Any construction will also require a substantial one-time expenditure of both State and Federal funds which are not retrievable.

The commitment of these resources is based on the concept that residents in the immediate area, State, and region will benefit by the improved quality of the transportation system. These benefits will consist of

improved accessibility and safety, savings in time, and greater availability of quality services which are anticipated to outweigh the commitment of these resources."

H. List of Preparers

This section should include lists of:

- (1) State (and local agency) personnel, including consultants, who were primarily responsible for preparing the EIS or performing environmental studies, and a brief summary of their qualifications, including educational background and experience.
- (2) The FHWA personnel primarily responsible for preparation or review of the EIS and their qualifications.
- (3) The areas of EIS responsibility for each preparer.

I. List of Agencies, Organizations, and Persons to Whom Copies of the Statement are Sent

Draft EIS: List all entities from which comments are being requested (40 CFR 1502.10). Final EIS: Identify those entities that submitted comments on the draft EIS and those receiving a copy of the final EIS (23 CFR 771.125(a) and (g)).

J. Comments and Coordination

1. The draft EIS should contain copies of pertinent correspondence with each cooperating agency, other agencies and the public and summarize: 1) the early coordination process, including scoping; 2) the meetings with community groups (including minority and non-minority interests) and individuals; and 3) the key issues and pertinent information received from the public and government agencies through these efforts.
2. The final EIS should include a copy of substantive comments from the U.S. Secretary of Transportation (OST), each cooperating agency, and other commentors on the draft EIS. Where the response is exceptionally voluminous the comments may be summarized. An appropriate response should be provided to each substantive comment. When the EIS text is revised as a result of the comments received, a copy of the comments should contain marginal references indicating where revisions were made, or the response to the comments should contain such references. The response should adequately address the issue or concern raised by the commentor or, where substantive comments do not warrant further response, explain why they do not, and provide sufficient information to support that position.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

The FHWA and the HA are not commenters within the meaning of NEPA and their comments on the draft EIS should not be included in the final EIS. However, the document should include adequate information for FHWA and the HA to ascertain the disposition of the comment(s).

3. The final EIS should (1) summarize the substantive comments on social, economic, environmental and engineering issues made at the public hearing, if one is held, or the public involvement activities or which were otherwise considered and (2) discuss the consideration given to any substantive issue raised and provide sufficient information to support that position.
4. The final EIS should document compliance with requirements of all applicable environmental laws, Executive Orders, and other related requirements, such as Title VI of the Civil Rights Act of 1964. To the extent possible, all environmental issues should be resolved prior to the submission of the final EIS. When disagreement on project issues exists with another agency, coordination with the agency should be undertaken to resolve the issues. Where the issues cannot be resolved, the final EIS should identify any remaining unresolved issues, the steps taken to resolve the issues, and the positions of the respective parties. Where issues are resolved through this effort, the final EIS should demonstrate resolution of the concerns.

K. Index

The index should include important subjects and areas of major impacts so that a reviewer need not read the entire EIS to obtain information on a specific subject or impact.

L. Appendices

The EIS should briefly explain or summarize methodologies and results of technical analysis and research. Lengthy technical discussions should be contained in a technical report. Material prepared as appendices to the EIS should:

- (1) consist of material prepared specifically for the EIS;
- (2) consist of material which substantiates an analysis fundamental to the EIS;
- (3) be analytic and relevant to the decision to be made; and
- (4) be circulated with the EIS within FHWA, to EPA (Region), and to cooperating agencies and be readily available on request by other parties. Other reports and studies referred to in the EIS should be readily available for review or for copying at a convenient location.

VI. OPTIONS FOR PREPARING FINAL EISs

The CEQ regulations place heavy emphasis on reducing paperwork, avoiding unnecessary work, and producing documents which are useful to decisionmakers and to the public. With these objectives in mind, three different approaches to preparing final EISs are presented below. The first two approaches can be employed on any project. The third approach is restricted to the conditions specified by CEQ (40 CFR 1503.4(c)).

A. Traditional Approach

Under this approach, the final EIS incorporates the draft EIS (essentially in its entirety) with changes made as appropriate throughout the document to reflect the selection of an alternative, modifications to the project, updated information on the affected environment, changes in the assessment of impacts, the selection of mitigation measures, wetland and floodplain findings, the results of coordination, comments received on the draft EIS and responses to these comments, etc. Since so much information is carried over from the draft to the final, important changes are sometimes difficult for the reader to identify. Nevertheless, this is the approach most familiar to participants in the NEPA process.

B. Condensed Final EIS

This approach avoids repetition of material from the draft EIS by incorporating, by reference, the draft EIS. The final EIS is, thus, a much shorter document than under the traditional approach; however, it should afford the reader a complete overview of the project and its impacts on the human environment.

The crux of this approach is to briefly reference and summarize information from the draft EIS which has not changed and to focus the final EIS discussion on changes in the project, its setting, impacts, technical analysis, and mitigation that have occurred since the draft EIS was circulated. In addition, the condensed final EIS must identify the preferred alternative, explain the basis for its selection, describe coordination efforts, and include agency and public comments, responses to these comments, and any required findings or determinations (40 CFR 1502.14(e) and 23 CFR 771.125(a)).

The format of the final EIS should parallel the draft EIS. Each major section of the final EIS should briefly summarize the important information contained in the corresponding section of the draft, reference the section of the draft that provides more detailed information, and discuss any noteworthy changes that have occurred since the draft was circulated.

At the time that the final is circulated, an additional copy of the draft EIS need not be provided to those parties that received a copy of the draft EIS when it was circulated. Nevertheless, if, due to the passage of time or other reasons, it is likely that they will have disposed of their original copy of the draft EIS, then a copy of the draft EIS should be provided with the final. In any case, sufficient copies of the draft EIS

FHWA TECHNICAL ADVISORY T 6640.BA
OCTOBER 30, 1987
ATTACHMENT

should be on hand to satisfy requests for additional copies. Both the draft EIS and the condensed final EIS should be filed with EPA under a single final EIS cover sheet.

C. Abbreviated Version of Final EIS

The CEQ regulation (40 CFR 1503.4(c)) provides the opportunity to expedite the final EIS preparation where the only changes needed in the document are minor and consist of factual corrections and/or an explanation of why the comments received on the draft EIS do not warrant further response. In using this approach, care should be exercised to assure that the draft EIS contains sufficient information to make the findings in (2) below and that the number of errata sheets used to make required changes is small and that these errata sheets together with the draft EIS constitute a readable, understandable, full disclosure document. The final EIS should consist of the draft EIS and an attachment containing the following:

- (1) Errata sheets making any necessary corrections to the draft EIS;
- (2) A section identifying the preferred alternative and a discussion of the reasons it was selected. The following should also be included in this section where applicable:
 - (a) final Section 4(f) evaluations containing the information described in Section IX of these guidelines;
 - (b) wetland finding(s);
 - (c) floodplain finding(s);
 - (d) a list of commitments for mitigation measures for the preferred alternative; and
- (3) Copies (or summaries) of comments received from circulation of the draft EIS and public hearing and responses thereto.

Only the attachment need be provided to parties who received a copy of the draft EIS, unless it is likely that they will have disposed of their original copy, in which case both the draft EIS and the attachment should be provided (40 CFR 1503.4(c)). Both the draft EIS and the attachment must be filed with EPA under a single final EIS cover sheet (40 CFR 1503.4(c)).

VII. DISTRIBUTION OF EISs AND SECTION 4(f) EVALUATIONS

A. Environmental Impact Statement

1. After clearance by FHWA, copies of all draft EISs must be made available to the public and circulated for comments by the HA to: all public officials, private interest groups, and members of the public known to have an interest in the proposed action or the draft EIS; all Federal, State, and local government agencies expected to have

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

jurisdiction, responsibility, interest, or expertise in the proposed action; and States and Federal land management entities which may be affected by the proposed action or any of the alternatives (40 CFR 1502.19 and 1503.1). Distribution must be made no later than the time the document is filed with EPA for Federal Register publication and must allow for a minimum 45-day review period (40 CFR 1506.9 and 1506.10). Internal FHWA distribution of draft and final EISs is subject to change and is noted in memorandums to the Regional Administrators as requirements change.

2. Copies of all approved final EISs must be distributed to all Federal, State, and local agencies and private organizations, and members of the public who provided substantive comments on the draft EIS or who requested a copy (40 CFR 1502.19). Distribution must be made no later than the time the document is filed with EPA for Federal Register publication and must allow for a minimum 30-day review period before the Record of Decision is approved (40 CFR 1506.9 and 1506.10). Two copies of all approved EISs should be forwarded to the FHWA Washington Headquarters (HEV-11) for recordkeeping purposes.

3. Copies of all EISs should normally be distributed to EPA and DOI as follows, unless the agency has indicated to the FHWA offices the need for a different number of copies:

- (a) The EPA Headquarters: five copies of the draft EIS and five copies of the final EIS (This is the "filing requirement" in Section 1506.9 of the CEQ regulation.) to the following address:
Environmental Protection Agency, Office of Federal Activities (A-104), 401 M Street, SW., Washington, D.C. 20460.

- (b) The appropriate EPA Regional Office responsible for EPA's review pursuant to Section 309 of the Clean Air Act: five copies of the draft EIS and five copies of the final EIS.

- (c) The DOI Headquarters to the following address:

U.S. Department of the Interior
Office of Environmental Project Review
Room 4239
18th and C Streets, NW.
Washington, D.C. 20240

- (1) All States in FHWA Regions 1, 3, 4, and 5, plus Hawaii, Guam, American Samoa, Virgin Islands, Arkansas, Iowa, Louisiana, and Missouri; 12 copies of the draft EIS and 7 copies of the final EIS.

- (11) Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas: 13 copies of the draft EIS and 8 copies of the final EIS.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

(111) New Mexico and all States in FHWA Regions 8, 9, and 10, except Hawaii, North Dakota, and South Dakota: 14 copies of the draft EIS and 9 copies of the final EIS.

Note: DOI Headquarters will make distribution within its Department. While not required, advance distribution to DOI field offices may be helpful to expedite their review.

B. Section 4(f) Evaluation

If the Section 4(f) evaluation is included in a draft EIS, the DOI Headquarters does not need additional copies of the draft or final EIS/Section 4(f) evaluation. If the Section 4(f) evaluation is processed separately or as part of an EA, the DOI should receive seven copies of the draft Section 4(f) evaluation for coordination and seven copies of the final Section 4(f) evaluation for information. In addition to coordination with DOI, draft Section 4(f) evaluations must be coordinated with the officials having jurisdiction over the Section 4(f) property and the Department of Housing and Urban Development (HUD) and the United States Department of Agriculture (USDA) where these agencies have an interest in or jurisdiction over the affected Section 4(f) resource (23 CFR 771.135(1)). The point of coordination for HUD is the appropriate Regional Office and for USDA, the Forest Supervisor of the affected National Forest. One copy should be provided to the officials with jurisdiction and two copies should be submitted to HUD and USDA when coordination is required.

VIII. RECORD OF DECISION--FORMAT AND CONTENT

The Record of Decision (ROD) will explain the reasons for the project decision, summarize any mitigation measures that will be incorporated in the project and document any required Section 4(f) approval. While cross-referencing and incorporation by reference of the final EIS (or final EIS supplement) and other documents are appropriate, the ROD must explain the basis for the project decision as completely as possible, based on the information contained in the EIS (40 CFR 1502.2). A draft ROD should be prepared by the HA and submitted to the Division Office with the final EIS. The following key items need to be addressed in the ROD:

A. Decision.

Identify the selected alternative. Reference to the final EIS (or final EIS supplement) may be used to reduce detail and repetition.

B. Alternatives Considered.

This information can be most clearly organized by briefly describing each alternative and explaining the balancing of values which formed the basis for the decision. This discussion must identify the environmentally preferred alternative(s) (i.e., the alternative(s) that causes the least damage to the biological and physical environment) (40 CFR 1505.2(b)). Where the selected alternative is other than the environmentally preferable

alternative, the ROD should clearly state the reasons for not selecting the environmentally preferred alternative. If lands protected by Section 4(f) were a factor in the selection of the preferred alternative, the ROD should explain how the Section 4(f) lands influenced the selection.

The values (social, economic, environmental, cost-effectiveness, safety, traffic, service, community planning, etc.) which were important factors in the decisionmaking process should be clearly identified along with the reasons some values were considered more important than others. The Federal-aid highway program mandate to provide safe and efficient transportation in the context of all other Federal requirements and the beneficial impacts of the proposed transportation improvements should be included in this balancing. While any decision represents a balancing of the values, the ROD should reflect the manner in which these values were considered in arriving at the decision.

C. Section 4(f).

Summarize the basis for any Section 4(f) approval when applicable (23 CFR 771.127(a)). The discussion should include the key information supporting such approval. Where appropriate, this information may be included in the alternatives discussion above and referenced in this paragraph to reduce repetition.

D. Measures to Minimize Harm.

Describe the specific measures adopted to minimize environmental harm and identify those standard measures (e.g., erosion control, appropriate for the proposed action). State whether all practicable measures to minimize environmental harm have been incorporated into the decision and, if not, why they were not (40 CFR 1505.2(c)).

E. Monitoring or Enforcement Program.

Describe any monitoring or enforcement program which has been adopted for specific mitigation measures, as outlined in the final EIS.

F. Comments on Final EIS.

All substantive comments received on the final EIS should be identified and given appropriate responses. Other comments should be summarized and responses provided where appropriate.

For recordkeeping purposes, a copy of the signed ROD should be provided to the Washington Headquarters (HEY-11). For a ROD approved by the Division Office, copies should be sent to both the Washington Headquarters and the Regional Office.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

IX. SECTION 4(f) EVALUATIONS--FORMAT AND CONTENT

A Section 4(f) evaluation must be prepared for each location within a proposed project before the use of Section 4(f) land is approved (23 CFR 771.135(a)). For projects processed with an EIS or an EA/FONSI, the individual Section 4(f) evaluation should be included as a separate section of the document, and for projects processed as categorical exclusions, as a separate Section 4(f) evaluation document. Pertinent information from various sections of the EIS or EA/FONSI may be summarized in the Section 4(f) evaluation to reduce repetition. Where an issue on constructive use Section 4(f) arises and FHWA decides that Section 4(f) does not apply, the environmental document should contain sufficient analysis and information to demonstrate that the resource(s) is not substantially impaired.

The use of Section 4(f) land may involve concurrent requirements of other Federal agencies. Examples include consistency determinations for the use of public lands managed by the Bureau of Land Management, compatibility determinations for the use of land in the National Wildlife Refuge System and the National Park System, determinations of direct and adverse effects for Wild and Scenic Rivers, and approval of land conversions under Section 6(f) of the Land and Water Conservation Fund Act. The mitigation plan developed for the project should include measures which would satisfy the various requirements. For example, Section 6(f) directs the Department of the Interior (National Park Service) to assure that replacement lands of equal value, location and usefulness are provided as conditions to approval of land conversions. Therefore, where a Section 6(f) land conversion is proposed for a highway project, replacement land will be necessary. Regardless of the mitigation proposed, the draft and final Section 4(f) evaluations should discuss the results of coordination with the public official having jurisdiction over the Section 4(f) land and document the National Park Service's position on the Section 6(f) land transfer, respectively.

A. Draft Section 4(f) Evaluation

The following format and content are suggested. The listed information should be included in the Section 4(f) evaluation, as applicable.

1. Proposed Action.

Where a separate Section 4(f) evaluation is prepared, describe the proposed project and explain the purpose and need for the project.

2. Section 4(f) Property.

Describe each Section 4(f) resource which would be used by any alternative under consideration. The following information should be provided:

- (a) A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

- (b) Size (acres or square feet) and location (maps or other exhibits such as photographs, sketches, etc.) of the affected Section 4(f) property.
- (c) Ownership (city, county, State, etc.) and type of Section 4(f) property (park, recreation, historic, etc.).
- (d) Function of or available activities on the property (ball playing, swimming, golfing, etc.).
- (e) Description and location of all existing and planned facilities (ball diamonds, tennis courts, etc.).
- (f) Access (pedestrian, vehicular) and usage (approximate number of users/visitors, etc.).
- (g) Relationship to other similarly used lands in the vicinity.
- (h) Applicable clauses affecting the ownership, such as lease, easement, covenants, restrictions, or conditions, including forfeiture.
- (i) Unusual characteristics of the Section 4(f) property (flooding problems, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property.

3. Impacts on the Section 4(f) Property(ies).

Discuss the impacts on the Section 4(f) property for each alternative (e.g., amount of land to be used, facilities and functions affected, noise, air pollution, visual, etc.). Where an alternative (or alternatives) uses land from more than one Section 4(f) property, a summary table would be useful in comparing the various impacts of the alternative(s). Impacts (such as facilities and functions affected, noise, etc.) which can be quantified should be quantified. Other impacts (such as visual intrusion) which cannot be quantified should be described.

4. Avoidance Alternatives.

Identify and evaluate location and design alternatives which would avoid the Section 4(f) property. Generally, this would include alternatives to either side of the property. Where an alternative would use land from more than one Section 4(f) property, the analysis needs to evaluate alternatives which avoid each and all properties (23 CFR 771.135(i)). The design alternatives should be in the immediate area of the property and consider minor alignment shifts, a reduced facility, retaining structures, etc. individually or in combination, as appropriate. Detailed discussions of alternatives in an EIS or EA need not be repeated in the Section 4(f) portion of the document, but should be referenced and summarized. However, when alternatives (avoiding Section 4(f) resources) have been eliminated from detailed study the discussion should also explain whether these alternatives are feasible and prudent and, if not, the reasons why.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

5. Measures to Minimize Harm.

Discuss all possible measures which are available to minimize the impacts of the proposed action on the Section 4(f) property(ies). Detailed discussions of mitigation measures in the EIS or EA may be referenced and appropriately summarized, rather than repeated.

6. Coordination.

Discuss the results of preliminary coordination with the public official having jurisdiction over the Section 4(f) property and with regional (or local) offices of DOI and, as appropriate, the Regional Office of HUD and the Forest Supervisor of the affected National Forest. Generally, the coordination should include discussion of avoidance alternatives, impacts to the property, and measures to minimize harm. In addition, the coordination with the public official having jurisdiction should include, where necessary, a discussion of significance and primary use of the property.

Note: The conclusion that there are no feasible and prudent alternatives is not normally addressed at the draft Section 4(f) evaluation stage. Such conclusion is made only after the draft Section 4(f) evaluation has been circulated and coordinated and any identified issues adequately evaluated.

B. Final Section 4(f) Evaluation

When the preferred alternative uses Section 4(f) land, the final Section 4(f) evaluation must contain (23 CFR 771.135(i) and (j)):

- (1) All the above information for a draft evaluation.
- (2) A discussion of the basis for concluding that there are no feasible and prudent alternatives to the use of the Section 4(f) land. The supporting information must demonstrate that "there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes" (23 CFR 771.135(a)(2)). This language should appear in the document together with the supporting information.
- (3) A discussion of the basis for concluding that the proposed action includes all possible planning to minimize harm to the Section 4(f) property. When there are no feasible and prudent alternatives which avoid the use of Section 4(f) land, the final Section 4(f) evaluation must demonstrate that the preferred alternative is a feasible and prudent alternative with the least harm on the Section 4(f) resources after considering mitigation to the Section 4(f) resources.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

- (4) A summary of the appropriate formal coordination with the Headquarters Offices of DOI (and/or appropriate agency under that Department) and, as appropriate, the involved offices of USDA and HUD.
- (5) Copies of all formal coordination comments and a summary of other relevant Section 4(f) comments received and an analysis and response to any questions raised. Where new alternatives or modifications to existing alternatives are identified and will not be given further consideration, the basis for dismissing these alternatives should be provided and supported by factual information. Where Section 6(f) land is involved, the National Park Service's position on the land transfer should be documented.
- (6) Concluding statement as follows: "Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the (identify Section 4(f) property) and the proposed action includes all possible planning to minimize harm to the (Section 4(f) property) resulting from such use."

X. OTHER AGENCY STATEMENTS

- A. The FHWA review of statements prepared by other agencies will consider the environmental impact of the proposal on areas within FHWA's functional area of responsibility or special expertise (40 CFR 1503.2).
- B. Agencies requesting comments on highway impacts usually forward the draft EIS to the FHWA Washington Headquarters for comment. The FHWA Washington Headquarters will normally distribute these EISs to the appropriate Regional or Division Office (per Regional Office request) and will indicate where the comments should be sent. The Regional Office may elect to forward the draft statement to the Division Office for response.
- C. When a field office has received a draft EIS directly from another agency, it may comment directly to that agency if the proposal does not fall within the types indicated in item (d) of this section. If more than one DOT Administration is commenting at the Regional level, the comments should be coordinated by the DOT Regional Representative to the Secretary or designee. Copies of the FHWA comments should be distributed as follows:
 - (1) Requesting agency--original and one copy.
 - (2) P-14--one copy.
 - (3) DOT Secretarial Representative--one copy.
 - (4) HEY-11--one copy.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

D. The following types of actions contained in the draft EIS require FHWA Washington Headquarters review and such EISs should be forwarded to the Director, Office of Environmental Policy, along with Regional comments, for processing:

- (1) actions with national implications, and
- (2) legislation or regulations having national impacts or national program proposals.

XI. REEVALUATIONS

A. Draft EIS Reevaluation

If an acceptable final EIS is not received by FHWA within 3 years from the date of the draft EIS circulation, then a written evaluation is required to determine whether there have been changes in the project or its surroundings or new information which would require a supplement to the draft EIS or a new draft EIS (23 CFR 771.129(a)). The written evaluation should be prepared by the HA in consultation with FHWA and should address all current environmental requirements. The entire project should be revisited to assess any changes that have occurred and their effect on the adequacy of the draft EIS.

There is no required format for the written evaluation. It should focus on the changes in the project, its surroundings and impacts and any new issues identified since the draft EIS. Field reviews, additional studies (as necessary) and coordination (as appropriate) with other agencies should be undertaken and the results included in the written evaluation. If, after reviewing the written evaluation, the FHWA concludes that a supplemental EIS or a new draft EIS is not required, the decision should be appropriately documented. Since the next major step in the project development process is preparation of a final EIS, the final EIS may document the decision. A statement to this fact, the conclusions reached and supporting information should be briefly summarized in the Summary Section of the final EIS.

B. Final EIS Reevaluation

There are two types of reevaluations required for a final EIS: consultation and written evaluation (23 CFR 771.129(b) and (c)). For the first, consultation, the final EIS is reevaluated prior to proceeding with major project approval (e.g., right-of-way acquisition, final design, and plans, specifications, and estimates (PS&E)) to determine whether the final EIS is still valid. The level of analysis and documentation, if any, should be agreed upon by the FHWA and HA. The analysis and documentation should focus on and be commensurate with the changes in the project and its surroundings, potential for controversy, and length of time since the last environmental action. For example, when the consultation occurs shortly after final EIS approval, an analysis usually should not be necessary. However, when it occurs nearly 3 years after final EIS approval, but before

a written evaluation is required, the level of analysis should be similar to what normally would be undertaken for a written evaluation. Although written documentation is left to the discretion of the Division Administrator, it is suggested that each consultation be appropriately documented in order to have a record to show the requirement was met.

The second type of reevaluation is a written evaluation. It is required if the HA has not taken additional major steps to advance the project (i.e., has not received from FHWA authority to undertake final design, authority to acquire a significant portion of the right-of-way, or approval of the PS&E) within any 3-year time period after approval of the final EIS, the final supplemental EIS, or the last major FHWA approval action. The written evaluation should be prepared by the HA in consultation with FHWA and should address all current environmental requirements. The entire project should be revisited to assess any changes that have occurred and their effect on the adequacy of the final EIS.

There is no required format for the written evaluation. It should focus on the changes in the project, its surroundings and impacts and any new issues identified since the final EIS was approved. Field reviews, additional environmental studies (as necessary), and coordination with other agencies should be undertaken (as appropriate to address any new impacts or issues) and the results included in the written evaluation. The FHWA Division Office is the action office for the written evaluation. If it is determined that a supplemental EIS is not needed, the project files should be documented appropriately. In those rare cases where an EA is prepared to serve as the written evaluation, the files should clearly document whether new significant impacts were identified during the reevaluation process.

XII. SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENTS (EISs)

Whenever there are changes, new information, or further developments on a project which result in significant environmental impacts not identified in the most recently distributed version of the draft or final EIS, a supplemental EIS is necessary (40 CFR 1502.9(c)). If it is determined that the changes or new information do not result in new or different significant environmental impacts, the FHWA Division Administrator should document the determination. (After final EIS approval, this documentation could take the form of notation to the files; for a draft EIS, this documentation could be a discussion in the final EIS.)

A. Format and Content of a Supplemental EIS

There is no required format for a supplemental EIS. The supplemental EIS should provide sufficient information to briefly describe the proposed action, the reason(s) why a supplement is being prepared, and the status of the previous draft or final EIS. The supplemental EIS needs to address only those changes or new information that are the basis for preparing the supplement and were not addressed in the previous EIS (23 CFR 771.130(a)). Reference to and summarizing the previous EIS is preferable to repeating

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT

unchanged, but still valid, portions of the original document. For example, some items such as affected environment, alternatives, or impacts which are unchanged may be briefly summarized and referenced. New environmental requirements which became effective after the previous EIS was prepared need to be addressed in the supplemental EIS to the extent they apply to the portion of the project being evaluated and are relevant to the subject of the supplement (23 CFR 771.130(a)). Additionally, to provide an up-to-date status of compliance with NEPA, it is recommended that the supplement summarize the results of any reevaluations that have been performed for portions of or the entire proposed action. By this inclusion, the supplement will reflect an up-to-date consideration of the proposed action and its effects on the human environment. When a previous EIS is referenced, the supplemental EIS transmittal letter should indicate that copies of the original (draft or final) EIS are available and will be provided to all requesting parties.

B. Distribution of a Supplemental EIS

A supplemental EIS will be reviewed and distributed in the same manner as a draft and final EIS (23 CFR 771.130(d)). (See Section VII for additional information.)

XIII. Appendices

Two appendices are included as follows:

Appendix A: Environmental Laws, Authority and Related Statutes
and Orders

Appendix B: Preparation and Processing of Notices of Intent.

ENVIRONMENTAL LAWS,
AUTHORITY AND RELATED STATUTES AND ORDERS

AUTHORITY:

42 United States Code (U.S.C.) 4321 et seq., National Environmental Policy Act of 1969, as amended.

23 U.S.C. 138 and 49 U.S.C. 303, Section 4(f) of the Department of Transportation (DOT) Act of 1966.

23 U.S.C. 109(h), (i), and (j) standards.

23 U.S.C. 128, Public Hearings.

23 U.S.C. 315, Rules, Regulations and Recommendations.

23 Code of Federal Regulations (CFR), Part 771, Environmental Impact and Related Procedures.

40 CFR 1500 et seq., Council on Environmental Quality, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act.

49 CFR 1.48(b), DOT Delegations of Authority to the Federal Highway Administration.

DOT Order 5610.1c, Procedures for Considering Environmental Impacts, September 18, 1979, and subsequent revisions.

RELATED STATUTES AND ORDERS: The following is a list of major statutes and orders on the preparation of environmental documents.

7 U.S.C. 4201 et seq., Farmland Protection Policy Act of 1981.

16 U.S.C. 461 et seq., Archaeological and Historic Preservation Act; and 23 U.S.C. 305.

16 U.S.C. 470f, Sections 106, 110(d) and 110(f) of the National Historic Preservation Act of 1966.

16 U.S.C. 662, Section 2 of the Fish and Wildlife Coordination Act.

16 U.S.C. 1452, 1456, Sections 303 and 307 of the Coastal Zone Management Act of 1972.

16 U.S.C. 1271 et. seq., Wild and Scenic Rivers Act.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT - APPENDIX A

16 U.S.C. 1536, Section 7 of the Endangered Species Act of 1973.
33 U.S.C. 1251 et seq., Clean Water Act of 1977.

33 U.S.C. 1241 et seq., Resource Conservation and Recovery Act.

42 U.S.C. 300(f) et seq., Safe Drinking Water Act.

42 U.S.C. 4371 et seq., Environmental Quality Improvement Act of 1970.

42 U.S.C. 4601 et seq., Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

42 U.S.C. 4901 et seq., Noise Control Act of 1972.

42 U.S.C. 9601 et seq., Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

42 U.S.C. 7401 et seq., Clean Air Act.

42 U.S.C. 2000d-d4, Title VI of the Civil Rights Act of 1964.

43 U.S.C. Coastal Barriers Resources Act of 1982.

Executive Order 11514, Protection and Enhancement of Environmental Quality, as amended by Executive Order 11991, dated May 24, 1977.

Executive Order 11593, Protection and Enhancement of the Cultural Environment, dated May 13, 1971, implemented by DOT Order 5650.1, dated, November 20, 1972.

Executive Order 11988, Floodplain Management, dated May 24, 1977, implemented by DOT Order 5650.2, dated April 23, 1979.

Executive Order 11990, Protection of Wetlands, dated May 24, 1977, implemented by DOT Order 5660.1A, dated August 24, 1978.

Preparation and Processing of Notices of Intent

The CEQ regulations and Title 23, Code of Federal Regulations, Part 771, Environmental Impact and Related Procedures, require the Administration to publish a notice of intent in the Federal Register as soon as practicable after the decision is made to prepare an environmental impact statement (EIS) and before the scoping process (40 CFR 1501.7). A notice of intent will also be published when a decision is made to supplement a final EIS, but will not be necessary when preparing a supplement to a draft EIS (23 CFR 771.130(d)). The responsibility for preparing notices of intent has been delegated to Regional Federal Highway Administrators and subsequently redelegated to Division Administrators. The notice should be sent directly to the Federal Register at the address provided in Attachment 1 and a copy provided to the Project Development Branch (HEV-11), Office of Environmental Policy, and the appropriate Region Office.

In cases where a notice of intent is published in the Federal Register and a decision is made not to prepare the draft EIS or, when the draft EIS has been prepared, a decision is made not to prepare a final EIS, a revised notice of intent should be published in the Federal Register advising of the decision and the reasons for not preparing the EIS. This applies to future and current actions being processed.

Notices of intent should be prepared and processed in strict conformance with the guidelines in Attachment 1 in order to ensure acceptance for publication by the Office of the Federal Register. A sample of each notice of intent for preparation of an EIS and a supplemental EIS is provided as Attachment 2.

The Project Development Branch (HEV-11) will serve as the Federal Register contact point for notice of intent. All inquiries should be directed to that office.

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT - APPENDIX B

GUIDELINES FOR PREPARATION AND PROCESSING OF NOTICES OF INTENT

FORMAT

1. Typed in black on white bond paper.
2. Paper size: 8 1/2" x 11."
3. Margins: Left at least 1 1/2", all others 1."
4. Spacing: All material double spaced (except title in heading).
5. Heading: Four items on first page at head of document (see Attachment 2):
 - Billing Code No. 4910-22 typed in brackets or parentheses
 - DEPARTMENT OF TRANSPORTATION (all upper case)
 - Federal Highway Administration
 - ENVIRONMENTAL IMPACT STATEMENT; COUNTY OR CITY, STATE (all upper case; single space)
6. Text: Five sections - AGENCY, ACTION, SUMMARY, FOR FURTHER INFORMATION CONTACT, AND SUPPLEMENTARY INFORMATION; each section title in upper case followed by colon (see Content (below) and Samples 1 and 2).
7. Closing:
 - Include the Catalog of Federal Domestic Assistance number and title
 - Issued on: (indent 5 spaces and type or stamp in date when document is signed)
 - Signature line (begin in middle of page; type name, title, and city under the signature; use name and title of the official actually signing the document (e.g., "John Doe, District Engineer," not "John Doe, for the Division Administrator"))
8. Document should be neat and in form suitable for public inspection. Two or more notices of intent can be included in a single document by making appropriate revisions to the heading and text of the document.

CONTENT

1. AGENCY: Federal Highway Administration (FHWA), DOT.
2. ACTION: Notice of Intent.
3. SUMMARY: The FHWA is issuing this notice to advise the public that an environmental impact statement will be prepared for a proposed highway project in
4. FOR FURTHER INFORMATION CONTACT: This section should state the name and address of a person or persons within the FHWA Division Office who can answer questions about the proposed action and the EIS as it is being developed. The listing of a telephone number is optional. State and/or local officials may also be listed, but always following the FHWA contact person.
5. SUPPLEMENTARY INFORMATION: This section should contain:

- a. a brief narrative description of the proposed action (e.g., location of the action, type of construction, length of the project, needs which will be fulfilled by the action);

For a supplement to a final EIS add: the original EIS number and approval date, and the reason(s) for preparing the supplement;

- b. a brief description of possible alternatives to accomplish the goals of the proposed action (e.g., upgrade existing facility, do nothing (should always be listed), construction on new alignment, mass transit, multi-modal design); and
- c. a brief description of the proposed scoping process for the particular action including whether, when, and where any scoping meeting will be held.

For a supplement to a final EIS: the scoping process is not required for a supplement; however, scoping should be discussed to the extent anticipated for the development of the supplement;

In drafting this section -

- o use plain English
- o avoid technical terms and jargon
- o always refer to the proposed action or proposed project (e.g., the proposed action would . . .)
- o identify all abbreviations

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT - APPENDIX B

- o list FHWA first when other agencies (State or local) are listed as being involved in the preparation of the EIS

PROCESSING

1. Send three (3) duplicate originals each signed in ink by the issuing officer to:

Office of the Federal Register
National Archives and Records Administration
Washington, D.C. 20408

2. The duplicates must be identical in all respects. The Federal Register will accept electrostatic copies as long as they are readable and individually signed.
3. Three (3) additional copies are required if material is printed on both sides. If a single original and two certified copies are sent, the statement "CERTIFIED TO BE A TRUE COPY OF THE ORIGINAL" and the signature of a duly authorized certifying officer must appear on each certified copy.
4. A record should be kept of the date on which each notice is mailed to the Federal Register.
5. Send one (1) copy each to the Project Development Branch (HEV-11) and the Regional office.

S A M P L E 1

[4910-22]

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

ENVIRONMENTAL IMPACT STATEMENT: WASHINGTON COUNTY, WASHINGTON

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of Intent.

SUMMARY: The FHWA is issuing this notice to advise the public that an environmental impact statement will be prepared for a proposed highway project in Washington County, Washington.

FOR FURTHER INFORMATION CONTACT: James West, District Engineer, Federal Highway Administration, 400 Market Street, State Capital, Washington 98507, Telephone: (206) 222-2222.

SUPPLEMENTARY INFORMATION: The FHWA, in cooperation with the Washington Department of Transportation and the Washington County Highway Department, will prepare an environmental impact statement (EIS) on a proposal to improve U.S. Route 10 (U.S.10) in Washington County, Washington. The proposed improvement would involve the reconstruction of the existing U.S. 10 between the towns of Eastern and Western for a distance of about 20 miles.

Improvements to the corridor are considered necessary to provide for the existing and projected traffic demand. Also, included in this proposal is the replacement of the existing East End Bridge and a new interchange with Washington Highway 20 (W.H. 20) west of Eastern. Alternatives under consideration include (1) taking no action; (2) using alternate travel

FHWA TECHNICAL ADVISORY T 6640.8A
OCTOBER 30, 1987
ATTACHMENT - APPENDIX B

modes; (3) widening the existing two-lane highway to four lanes; and (4) constructing a four-lane, limited access highway on new location. Incorporated into and studied with the various build alternatives will be design variations of grade and alignment.

Letters describing the proposed action and soliciting comments will be sent to appropriate Federal, State, and local agencies, and to private organizations and citizens who have previously expressed or are known to have interest in this proposal. A series of public meetings will be held in Eastern and Western between May and June 1985. In addition, a public hearing will be held. Public notice will be given of the time and place of the meetings and hearing. The draft EIS will be available for public and agency review and comment prior to the public hearing. No formal scoping meeting is planned at this time.

To ensure that the full range of issues related to this proposed action are addressed and all significant issues identified, comments, and suggestions are invited from all interested parties. Comments or questions concerning this proposed action and the EIS should be directed to the FHWA at the address provided above.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Issued on: March 26, 1985.

John Doe
Division Administrator
Capital

S A M P L E 2

[4910-22]

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

ENVIRONMENTAL IMPACT STATEMENT: WASHINGTON COUNTY, WASHINGTON

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of Intent.

SUMMARY: The FHWA is issuing this notice to advise the public that a supplement to a final environmental impact statement will be prepared for a proposed highway project in Washington County, Washington.

FOR FURTHER INFORMATION CONTACT: James West, District Engineer, Federal Highway Administration, 400 Market Street, State Capital, Washington 98507, Telephone: (206) 222-2222.

SUPPLEMENTARY INFORMATION: The FHWA, in cooperation with the Washington Department of Transportation and the Washington County Highway Department, will prepare a supplement to the final environmental impact statement (EIS) on a proposal to improve U.S. Route 10 (U.S. 10) in Washington County, Washington. The original EIS for the improvements (FHWA-WA-EIS-85-06-F) was approved on December 21, 1985. The proposed improvements to U.S. 10 provide a divided four-lane, limited access highway on new location between the towns of Western and Eastern for a distance of about 20 miles. Improvements to the corridor are considered necessary to provide for existing and projected traffic demand.

The location and preliminary design of the western 15 miles portion of the proposed facility, from Western to U.S. 20, have been approved.

FHWA TECHNICAL ADVISORY T6640.8A
OCTOBER 30, 1987
ATTACHMENT - APPENDIX B

However, substantial changes in the local street system and land use development in Eastern have reduced the suitability of the approved location east of U.S. 20. The portion of the proposed facility east of U.S. 20 is now to be restudied to determine if a new route location and connection to I-90 would be appropriate.

Alternatives under consideration include (1) taking no action and terminating the facility at U.S. 20; (2) constructing a four-lane, limited access highway on the approved location; (3) widening the existing two-lane U.S. 10 to four lanes with a connection to U.S. 20; and (4) constructing a four-lane, limited access highway on new location and connecting to I-90. Incorporated into and studied with the various build alternatives will be design variations of grade and alignment.

Letters describing the proposed action and soliciting comments will be sent to appropriate Federal, State, and local agencies, and to private organizations and citizens who have previously expressed or are known to have interest in this proposal. A public meeting will be held in Eastern in August 1987. In addition, a public hearing will be held. Public notice will be given of the time and place of the meeting and hearing. The draft supplemental EIS will be available for public and agency review and comment prior to the public hearing. No formal scoping meeting will be held.

To ensure that the full range of issues related to this proposed action are addressed and all significant issues identified, comments and suggestions are invited from all interested parties. Comments or questions concerning this proposed action and the EIS should be directed to the FHWA at the address provided above.

FHWA TECHNICAL ADVISORY T6640.8A
OCTOBER 30, 1987
ATTACHMENT - APPENDIX B

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Research, Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Issued on: April 23, 1987.

John Doe
Division Administrator
Capital